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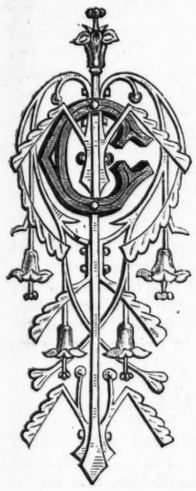

Anglo-Roman and Saxon Antiquities at the British Museum.

GRADUALLY but surely, the galleries on the upper floors of the British Museum are putting on another aspect of a very different nature to that which for so many years they have worn. Frequenters have taken delight in the long row of cases devoted to the exhibition of natural objects, but with the exception of the ornithological collections, arranged by the late Mr. G. R. Gray, F.R.S., and a few of the more unwieldy mammalians waiting to rejoin their congeners in new quarters, very little illustration of natural history is now to be seen in the Museum. The palæontological specimens, in which Professor Owen delights so much, gave place to Etruscan antiquities, and our readers will remember the description of that room which we printed at the time of its opening. In like manner the geological collections migrated to the South Kensington "British Museum of Natural History," and made way for the Egyptian antiquities, presided over by Dr. Birch; and of this change also, as well as of the elaboration of one of the old Egyptian rooms into a room of Archaic Greek Pottery, we gave notices at the periods of their arrangement. We now have to record the arrangement of the two rooms on the upper floor on the eastern or right-hand side of the south gallery, which were formerly devoted to the display of botanical specimens, and polished samples of exotic timbers. Here also art has displaced nature, and from henceforth the extensive series of national relics of the Romans and Anglo-Saxons, with foreign comparative objects, will occupy the position. At the work of arrangement Mr. A. W. Franks, F.R.S., keeper of the department to which these antiquities belong, has long laboured, and taking the opportunity which was afforded him by the completion of his task, he very courteously invited the officers and executive councils of the British Archæological Association, the London and Middlesex Archæological Society, and the Royal Archæological Institute, to inspect the new rooms on the afternoon of Saturday the 7th inst. In response to this complimentary recognition a large proportion of the members of the different bodies attended, and Mr. Franks, assisted by Mr. C. Read, F.S.A., his coadjutor, pointed out the results of his arrangements, and drew attention to the principal objects of interest.

The Anglo-Roman antiquities are located in the second and farthest room as one enters from the landing at the head of the grand staircase, behind the cases which for the present hold the gorilla family, while the first room, which is somewhat smaller, enshrines the Anglo-Saxon relics with a few Celtic and allied objects. Of the Roman antiquities, which the numerous excavations undertaken as well for private and systematic research as necessitated by the erection of buildings, and construction of railways, stations, sewers, and other works involving the displacement of large masses of earth, the British Museum possesses,—as indeed it is only proper that it should possess,—a very extensive and representative collection, which has been slowly accumulating for many years as the result of judicious purchases, bequests, gifts, and by other ways whereby things follow a kind of impulse which directs them to centres of attraction cognate to their own characteristics. The remarkably intelligent way in which these have been disposed for examination by visitors, and those who take an interest in such matters, speaks volumes for the future arrangement of the magnificent collection known as the Christy collection of ethnographical objects, which, we believe, will not have to wait very much longer in their present repository at Victoria-street, before they fall under the hands of Mr. Franks for disposition in the long galleries of the Museum, now being divested of the animals and birds. In the centre of the Anglo-Roman room is placed the fine heroic head of the Emperor Hadrian, found in the River Thames, probably not far from the original site of the statue, which, with exception of this head, and perhaps the large right hand with forefinger extended as it were in the act of command, found in Thames-street, is now no longer in existence. In front of it stands the beautifully-adorned bronze standing figure of an imperial personage which was found near Barking Hall, Suffolk. The lustrous patina, the coloured enamels, and, above all, the masterly and artistic composition of this commanding figure claim for it the first place in any description of Roman bronzes found in Britain. Not far from these set out in wall-cases on the left-hand side of the room, is a good display of smaller bronzes, among them being a fine green-coloured bronze figure of an archer in the act of drawing a bow, now wanting from the hand which held it, found in Queen-street, Cheapside, in the year 1842; a standing figure of an emperor found at Erith; casts of two heads endowed by the fabricator with a chaste and elevated expression, closely approaching to Greek art, believed to have been found in Bath; an enamelled cup found at Braughin, near Standon, in Hertfordshire; a helmet found between Tring and Berkhampstead, of the hemispherical form so well known in the modern jockey cap, but with the peak or projection intended to be worn at the back of the head instead of on the brow, as in modern fashion; and an enamelled bowl or vase found in a Roman sepulchre at Bartlow hills, Essex, in 1835, and unfortunately seriously injured,—but not before a model had been made of it,—by the fire at Easton Hall, in 1847. On the left side of the room the upright glass cases ranged against the wall contain a very large collection of fictile vessels, and are surmounted by large specimens of amphoræ, and sepulchral vessels of terra-cotta. The fictilia have been classified by Mr. Franks according to colour of the ware. First, the yellow pottery, chiefly from West Thurrock, in Essex, and Colchester, fertile spots to the Roman relic-searching antiquary, and a series of the flat bowl-shaped *mortaria*, and inscribed or stamped handles of jugs and amphoræ found in Moorgate-street and elsewhere. Then the more frequently occurring grey pottery yielded by various sites, such as, for example, Weymouth, Rochester, Reculver, Basing, Felixstow, and Exning. After these the highly-prized decorated pottery, with designs and letters in white slips, and that found *in situ* in Roman potters' kilns in the New Forest, Caistor, near Peterborough, and Colchester. The last-named locality supplies many vessels to the concluding class of pottery namely, the Samian, many bowls and vessels of which class are of unusual size, and indicate the highest point of art to which the moulder and designer of the figures and ornamental devices seen on red Roman ware ever attained.

On the opposite side of this well-stocked room the cases are surmounted by a series of small altars, for the most part sculptured on their front sides with full-length figures, and dedicated to Mars, Fortune, Victory, Sylvanus, and other deities of the Roman system of polytheistic mythology. They were found at King's Stanley and Bisley in Gloucestershire, and in other places. Near the doorway are deposited a few leaden coffins not far from the full size of human stature, some of which exhibit the conventional symbol of the pecten or escallop shell, and a jointed or beaded band or bar, a detail which may be noticed on other leaden relics in this collection. It is difficult to say why the escallop-shell, adopted in Mediæval days as the emblem of St. James the Apostle, and of pilgrims generally, should have been used by the Romans in Britain as a mortuary ornament. The first case on this side contains authentic sepulchral groups of pottery with the vessels arranged in the same relative position to each other as when they were first discovered at Colchester; the leaden lid of a sarcophagus which was exhumed at Haydon-square, in the Minories, enriched with the beaded ornament and escallop already referred to; a collection of glass urns used in cinerary burials, and miscel-

laneous objects such as bones, parts of dress, and sandals found at Southfleet, in Kent, enclosed in a stone sarcophagus; a large green glass bottle of square-sided form, found in a stone cist at Harpenden, in Hertfordshire; and a lecythus, or conical bottle, of bright green glass found in 1865 at Old Windsor, and presented by Her Majesty the Queen, to whom also the authorities of the British Museum are indebted for a perfect Roman tomb constructed of thick and ponderous red tiles of very large size, forming a square receptacle in which some cinerary urns are deposited. This impressive group was also discovered at Old Windsor at the same period. In a contiguous case are preserved the sepulchral cists found underground in Warwick-square, on the south side of Newgate-street, just behind the gaol buildings in 1881. These canister-shaped cylindrical boxes, with tight-fitting lids, are adorned with the favourite beaded pattern of the Roman leadsmith, and have on the side repeated surface plaques in relief, with the representation of a four-horsed chariot driven at racing speed by a charioteer. These cylinders contained large glass amphoræ and other objects. There was also found, and is here exhibited, a massive Florentine stone cinerary urn in which was a coin of Claudius, a fact which fixes the date of the interment between A.D. 41 and 54. In the same case a similar but smaller canister-shaped vessel of lead is shown, found in Endell-street in 1864; a leaden coffin of small dimensions, for a little child, from Mansell-street, Whitechapel; and a leaden vat or cistern, bearing an inscription which perpetuates the name of the British maker,—CVNOBARRVS. The glass vessels found from time to time at Colchester, one of the most fruitful sites ever explored for Roman remains in England, possess manifold shapes and elegant forms; one, added not long ago to the Museum treasures, is of pale bluish green, cylindrical in body, with broad lip on a pipe-shaped neck, and having the thin flattened handle peculiar to Roman glass. From Barnwell, in Cambridgeshire, is derived a rare shaped sepulchral jug or vase, having six sides, and containing the calcined bones of an ancient Roman of high rank; another vessel, square-sided, and replenished in like manner with the calcined *reliquiæ* of him in whose memory it was deposited in the grave, comes from Messing, in Essex. The next cases on this side of the room are filled with glass objects and miscellaneous antiquities, arranged in accordance with a system of classification adopted by Mr. Franks to bring into juxta-position objects of similar character. Among them may be pointed out for especial observation the drinking-cup of moulded glass, amber-coloured, bearing the favourite sporting device of a chariot race, with the names of those who took part in the contest placed along the frieze or rim of the cup; the sepulchral cyst filled with pottery, from Westergate, near Chichester; two curious cakes or molten masses of Roman copper found in the Paris mines of Anglesea; and some pewter cakes, found near Battersea, in the bed of the river Thames, inscribed with the name of Syagrius.

The iron implements and weapons which follow are from Lakenheath, Suffolk, and London; others, of Romano-British workmanship in bone and metal, from two caves not far from Settle, in Yorkshire. In other cases are displayed weights for steelyards, lamps, a stake found in the Thames at a place called Coway Stakes, where it is said that Julius Cæsar crossed the river; and a portion of a wooden pile, incrusted with a conglomerate formation containing Roman coins, found underneath the foundations of London Bridge. London sites also supply several horseshoes or slippers of remarkable form, furnished with a projecting ring or bend of metal in front of the hoof. The bas-reliefs of the "Deae Matres" from London, and Wellow, in Somersetshire, are followed by a stone tablet carved with a standard and symbols of the Second Legion, found at Benwell, in Northumberland,—a county which, as Alnwick Castle Museum testifies, has contributed a great many sculptures of the Roman period to our antiquarian knowledge and experiences. But, as a rule, sculpture of this period, as evinced by the examples hitherto discovered, is, with but a very few exceptions, of an inferior kind. This is shown by the marble statuette of the goddess Luna, found at Woodchester, in Gloucestershire, famous for its mosaic pavement; and that of Cupid and Psyche, in a fragmentary condition, from the same locality, now resting on the shelves of this new room in the Museum, as well as by the figures on the Gloucestershire altars already mentioned. To these relics succeed a selected series of roof-tiles, with the lower edge shaped in an acute angle; plain terra-cotta tiles; flue-tiles, deeply scored with the trowel's edge; flanged tiles, drain and conduit pipes, and portions of the coloured and decorated stucco work from the interior walls of Roman edifices. At the end of the room the wall supports the central subject,—Bacchus riding on a panther,—and parts of the ornamental border of a mosaic pavement found in Leadenhall-street.

Beneath this group are ranged the heavy pigs of Roman lead, one of which, from the mine of Lutudæ, was found near Matlock Bank, Derby; another at Broomer's Hill, Sussex; and others at Cromford Moor, Derby, bearing the name of the Emperor Hadrian; Snailbeach Farm, in Shropshire, also stamped with that imperial name; and Hayshaw Moor, Yorkshire, on which is found the name and titles of the Emperor Domitian. The table-cases which stand in the area of the room are well stocked with an immense variety of objects of domestic, military, and religious employment, such as locks and keys, tools, and other implements of the artificer, mirrors, pins, tweezers, weights, bells, steelyards, little boxes of fanciful shape for holding the indispensable seal so constantly in requisition in the well-conducted but frugal household of the ancient Roman, chains, rings, beads of glass, and other substances, shears, strainers, writing-boxes, and tablets or *pugillaria*, enamelled bronze, and gilt silver brooches, necklaces of finely iridescent glass beads, bronze pouches or purses for use on the arm; pins, beads, and armlets of jet; the bases of small vases made of a kind of shale, and known to the archæologist as kimmeridge coal-money; two portions of a Roman vase turned out of kimmeridge coal, found at Warden, in Bedfordshire; and three tables, like book-covers, chased with ornamental devices very like book-binders' blind-tooling, formed out of a slaty stone, and found near Weymouth. As the visitor pursues his inspection of the contents of these cases, he will not fail to notice several original tablets of bronze possessing remarkable and highly important palæographical features. These are (1) the "Malpas Diploma" of privileges, granted by the Emperor Trajan to military bodies serving in Britain, dated in the month of January, A.D. 103, found at Malpas, in Cheshire, in 1812, and presented by Lord Kenyon; (2) the "Sydenham Diploma," by Trajan, of similar import, A.D. 105; (3) the "Riveling Diploma," of Hadrian, A.D. 124, couched in similar terms, found near Sheffield; and (4, 5) two of Antoninus Pius, A.D. 164, found at Chesters, the Roman Cilurnum, co. Northumberland, presented to the Museum by Mr. J. Clayton, F.S.A., who has examined the site of that Roman station with considerable success. A tablet resembling these, and relating to British auxiliary troops, was found in 1881 near Liège, and has been described by Mr. C. Roach Smith, F.S.A., for the British Archæological Association, and by Dr. Adolf Ceuleneer, for the Archæological Academy of Belgium. Not far from these inscribed plates lies the iron sword and its accompanying sheath of bronze, richly ornamented with patterns of foliage, with birds, and the mythological device of Romulus and Remus, tended by their wolf foster-mother, recently found in the river-bed at Putney. One of the most singular objects in the whole collection is an instrument of massy metal, described as being perhaps a pair of brays for the nose of a victim. On the shanks of this peculiar implement are small busts representing the deities who presided in turn over the days of the week. This also comes from the Thames, and bears marks of the corroding influence of running water. It was formerly in the Roach Smith collection, the acquisition of which has aided, in no small measure, the proper illustration of Anglo-Roman arts and sciences in the British Museum. The thinly beaten plates of silver, ornamented with a kind of gauffering, and cut into fanciful shapes, dedicated, according to the tenor of the inscriptions upon them, as votive offerings to Mars and Vulcan, should not be overlooked. They were found at Barkway, in Hertfordshire, and presented by Lord Selsey to the Museum authorities. Two bronze helmets of different eras of Roman art, and of perfectly different form, are well worthy of notice. The one, having projections on the forehead, like budding horns, had been so flattened that, when first found, it was conjectured to be a breast-plate, but under the skilful manipulation of an artificer, it eventually yielded up its secret and resumed its pristine shape. The other, from Ribchester, in Lancashire, is ornamented with subjects in *repoussé* work representing combats or gladiatorial exercises, and is furnished with a portrait face or mask of considerable artistic merit. In concluding these observations on the contents of the table-cases, we may point out, among other relics which must be passed over, a glass funnel found on the site of a villa at North Wraxhall, in Wiltshire; window-glass from the recently-opened villa at Brading, in the Isle of Wight; a series of forgers' moulds for fabricating spurious coins; shoes and sandals of black leather, cut with reticulated work at the sides, found in London; bosses of shields; and finally a series of fragments of vessels, coins, and ingots of silver from Coleraine, in Ireland. For the charming arrangement of this large number of antiquities in a room of rather circumscribed dimensions and limited area, the public has to thank Mr. Franks very much.

The room in which the Anglo-Saxon relics are exhibited is of still smaller dimensions, but it will be found replete with many unique relics of our forefathers. In case No. 1 stand two remarkable glass drinking-vessels furnished with projecting ornaments or drops, which seem to indicate that it was designed for ornament rather than use. The pretty tints and light shades of some of the glass drinking-cups, and the iridescent glass beads from Saxon graves, will strike the visitor as he passes round the room. The pottery is dark coloured and heavy, but with characteristic forms, except in one or two rare instances, where, as in the bowl placed in case 5, the Roman form appears. The patterns deeply impressed into the thick earthen substance of the vase are not particularly artistic. But in the goldsmith's work, on the other hand, much taste is evinced, and a fine large fibula, adorned with gold filigree work, and a sword handle, also enriched with filigree, show the great excellence to which the worker in the precious metal had attained. The curious little buckets or pails, constructed with wooden staves bound with bronze or other metal, found at Long Wittenham, in Berkshire, and several other sites of Anglo-Saxon cemeteries, usually with male skeletons, no doubt bear witness to some details in the funeral ritual of those times which is now unexplained. Amber heads, crystal pendants, bronze or enamelled brooches and pins, iron knives, swords, and spear-heads seem to have formed the most durable treasures of those distant but simple-minded times, yet occasionally the home of a chief or ruler seems to have been signalised by the possession of some such richly-worked relic as the casket carved out of the bone of a whale, bearing the well-known subjects of Romulus and Remus with their wolf, the Magi adoring the new-born Saviour, the decollation of the Baptist, and the sack of Jerusalem, explained by runic legends in Northumbrian dialect. It would be impossible here to enumerate, however briefly, a tenth part of the collections in this room. The table cases are filled with the miscellaneous yield of many graves, systematically explored with the object not so much of acquiring the relics themselves as to find some clue to the *raison d'être* of their inhumation. Here are displayed fibulæ, pins, brooches, chains, rings, heads of amber and glass, weapons of many forms, seals, and carvings, a bone with patterns apparently sketched as a trial of skill by an engraver, imitation coin-brooches, combs, whetstones, oval bronze brooches of the Scandinavian type, and the multifarious objects, principally of small size, which remain to-day as witnesses of the early tastes and arts which obtained in Great Britain. It is not far to turn to the case of Celtic bells, hallowed by their association with the Saints of Ireland who flourished in the sixth and seventh century, small and of square pyramidal form, which still keeps its place among the sheep bells seen upon the downs of Sussex,—many of which are probably of considerable age, and certainly, as to form at least, remarkable instances of the way in which types of antiquity linger in the unlikely places of the earth. There are objects of Vandal and of Merovingian origin in the Anglo-Saxon room, as well as of Germano-Saxon and Gothic types, but the description of them would occupy more space than may here be devoted to that object. Happily the Museum is of easy access to all, its officials courteous, and a visit, however hastily

made, is sure to be attended with profit to the pleasure-seeker, the enthusiast, or the antiquary.

ROOM FOR ARCHITECTURE, AND ARCHITECTURE AS AFFECTED BY WANT OF ROOM.

No influence is so powerful, in producing slow but irresistible change, as the steady increase of population. The question is one which it has only become possible definitively to study within the present century, and serious difficulties and anomalies oppose the attempt to carry back our appreciation of the rate of increase to earlier times. This comes especially home to the architect in regarding the question of church accommodation. Since (in about 1815) English people recommenced the building of churches, we know how numerous have been the edifices raised for public worship. But the large size of many of our ancient churches, when compared with the actual population of the villages and rural districts in which they stand, is a fact that has caused much perplexity. The agglomerating movement by which, over the greater part of Europe, the population is becoming more and more urban in its character, may have much to do with the matter. But while the growth of the urban population at once explains the demand for new churches, it can hardly account for the extensive accommodation afforded by many of the old. It has been thought that the greater knowledge which we have attained of the laws of health, by enabling us to avoid those periodical plagues, pestilences, and famines that to some extent counteracted the normal growth of the population in past times, may have much to do with the change. Again, many noble churches were abbatial or conventual; and the wealth slowly but steadily accumulating in ecclesiastical hands from the Conquest to the Reformation has often been expended in a large and splendid provision of church room, probably considerably in excess of the wants of the times. But with all the allowances that can be made, the question of the size and even of the numbers of our early churches is not one that can be regarded as by any means satisfactorily understood.

The question of church room, whether in the past or in the present, is, however, but one case of that great general problem which is yearly becoming more grave for the statesman, the architect, and the sanitary reformer. Church room and house room are only details of the general question of the capacity of the island for the support of its population. The great change which, nearly half a century ago, was made in the laws regulating the admission into the country of food produced in foreign parts, was only one of those great secular movements which we are apt to attribute to the influence of this man, or that party, but which neither individuals nor parties would have been able to effect, except under conditions that made all men feel that change of some kind was inevitable. Again, that change in distribution of the population which the introduction of the railway system has done so much to hasten, is not one that can be spoken of as due to statesmen or to legislation. It has ensued on the facilitation of communication; and that in a manner which is perhaps not even yet thoroughly understood, and which it certainly would have been impossible to predict. The mode in which man makes work for man, and in which an increment in population causes, or at all events is closely accompanied (with one or two noted exceptions) by, an increase in productive industry, and even by a multiplication of the number of distinct trades and crafts, is a subject which has never yet received the attention that it deserves. How is it, that with each mile for which some striving town pushes forth its approaches into the country, occupations sift and form themselves,—that new inhabitants develope new wants, and that various industries, of distribution, of conversion, or even of, what we may call indication, spring up as if from seed broadcast on the soil?

Of the direct effect of the growth of population on the building industries, it is, of course, possible to speak with some distinctness. That 1 per cent. more of population will require 1 per cent. more of house-room may be anticipated; and in prosperous communities the demand for building will always be in advance of the numeric increase, because, with the increase of wealth and of luxury more house-room will be demanded per unit of population. But even here the subject is far from simple. There is the question of dilapidation and decay to be regarded alongside of the question of enlargement and increase. There is the subtle but mighty influence of fashion, the march of which it is so hard to predict. It might seem almost a paradox to say that the change of fashion as to locality depended on the respective prevalence of the winds from different quarters; but it is hard, with the map in our hands, to exclude this consideration from our minds. In seeking a site for a suburban residence a considerate architect will naturally be influenced by the degree in which the locality is injured or rendered valuable by the vicinity of the city; and thus, when he finds that a westerly wind brings clear sky to a site on the west of a town, while on the east the only wind that brings clear sky is one that is objectionable in other respects, we can understand why the west end should be the fashionable quarter (if no topographical difficulties oppose) as a sequel of natural causes.

It is thus evident that for those who look to the future, whether for the construction or choice of their dwellings, or for their selection of a stand-point for any industry which is to be more than ephemeral, the great question of capacity is assuming a predominant importance. Facilities of communication may prevent, on the one hand, a city from becoming "hide-bound," or a country locality from being deserted. But what is the natural limit of these facilities? At what point will they cease to be elastic? At what point of growth will it become necessary wholly to reconsider the question of communication, on the ground that the constant addition of details to the system renders the system as a whole unmanageable?

It may be thought that the time has arrived to direct some degree of systematic attention to this great question of capacity. There are signs in many quarters that, if neglected much longer, it may tend to settle itself, in perhaps an awkward fashion. Alike in the metropolis, in the provincial centres of industry, and in the wilder and more neglected regions of Scotland and of Ireland, is the question becoming troublesome. Its most urgent form, probably, is that which regards the homes of the urban industrial classes. As to this it is but too well known how serious the difficulty is becoming. But apart from the actual state of any particular district or class, what are the general features of the question? First, we have a constantly-increasing population, increasing at a rate which is not measured by the excess of births over deaths, great as that is, because it is augmented by a constant displacement of the adults. Then comes the consideration of the limit of the urban area,—a limit drawn not by walls and ditches, but by facility of intercommunication. The routes or lines of this intercommunication are each limited in their capacity, and in some cases that limit seems to be reached, or nearly so. Thus these routes to some extent interfere with and limit one another. Of this we have a signal instance in the case of the Thames Embankment and the Underground Railway. What the railway traveller desires is at variance with the proper use of the Embankment. Again, although we have happily, for a long time, been without any of those catastrophes which have shown the difficulty of the numerous junctions, crossings, and tunnels essential to the connexions of urban and suburban railways, the pressure of traffic on each of these is severe, and there is a necessary limit to the interchange of traffic. At the same time, with the growing density of population, rents inevitably rise. To some extent the cost of living in other respects must rise also. How the working man is to be able to pay the rent necessary for constructing fit abodes for him on the narrow and thickly-traversed area on which his work lies, is a problem of the most serious difficulty. And it is not one to be solved *ambulando*. To some extent the difficulty is palliated by railways. But the railway problem itself is not in a condition of satisfactory solution. The time comes when railways themselves become obstacles to the capacity of a given area. The constant demand for additional station room, especially for goods traffic, is of a magnitude which, if it could be put before the public in a bird's-eye view, is nothing short of appalling. So serious do the railway companies themselves find this outlay to be, that they are striving to reconsider the whole subject of rates of carriage. It was distinctly claimed before the Select Committee on Railways (Rates and Fares) of last year, as will be found on reference to the reports (226 and 226 I., 1881, and 317, 1882) that the companies had the right to impose terminal charges on goods to pay for the extraordinary outlay that they now made on stations. In the case of the Great Western Railway alone it was stated by the manager that the cost of the Smithfield station had been so large as to raise "the terminal expenses connected with minerals" at that station, not including carting, to 3s. 8¾d. per ton (226 I., 1881, p. 263). The wisdom of this outlay, or even the accuracy of the calculation, is not what we now seek to consider. We refer to it as raising the question, To what does this tend? There is a well-known Latin line which speaks of losing the aims of life for the sake of living. Something of the same kind seems to abound in this enormous development of what are called facilities. The centres of population are so pressed upon from within by the expansion of railway stations, that room and rent, and architectural fitness and convenience for the transaction of business, are all impeded and interfered with by this one development alone.

The question, When must a city begin to become uninhabitable from its very size? is one that it may be difficult to master; but it is hard to deny that it may arise. Two thousand two hundred years ago it was thought impossible for an independent community to attain the size of one of our third-rate towns. Aristotle speaks, if we remember rightly, of 50,000 inhabitants as being a larger number than a free city could expect to contain. The difficulty is complicated by the following fact:—The growth of a city is, to a certain extent, automatic, like that of a tree. But in the tree the idea of the full magnitude ultimately attainable was comprehended in the germ, and the growth of, perhaps, centuries, only results in the working out that germinal idea. In the city there is no such central idea. The market-place, the exchange, the central area that seemed ample or even splendid in the time of the Stuart kings, are shrinking into petty and inconvenient meanness in the reign of Queen Victoria. In many cases the difficulty is nobly met by the architect. To say nothing of such new features as are arising in London, what a city of palaces has Manchester become in comparison with the Manchester of 1830? But to all this there is a limit. Streets have their maximum capacity for traffic, and the time comes when the traffic catches up, and then chokes, the capacity. For a time something may be done by looking carefully for the points of restriction, and there making demolitions in order to give room. But the relation between width of street and of footway, and the volume of the stream of traffic to which it can give passage, has a physical limit, and that limit, in many places is now approached,—if not reached. Our readers may remember that we have given some details on this subject in discussing the question of the communications across the Thames. The traffic in several of the most densely-beaten thoroughfares in London,—as, for instance, in Great Tower-street, Fleet-street, and over London Bridge, has been ascertained. An instructive table will be found on page 252 of "Roads and Streets," by H. Law and D. K. Clark (to which useful little volume we have not unfrequently referred), which gives the number of vehicles that passed over twenty-two different streets, in twelve hours, in 1872-1873. These are reduced to the number in each case per foot in width of the street, by way of comparison. They range from 516 vehicles in Milk-street, which is only 14 ft. 6 in. wide, and where the number comes to only 36 per foot, to 13,767 in Mansion House-street, which is 46 ft. wide, and where the number is 300 vehicles per foot of width in twelve hours. Here we may see something like the limiting capacity of a road for vehicular traffic. As to foot traffic there is no doubt a limit. In the quick march of the army, 1,060 men, in single file, occupy a mile in length, and make 108 steps, covering 90 yards, in a minute. Thus the whole 1,060 men would pass a given point, if the march were continuous and uninterrupted, in $\frac{1760}{90} = 19{\cdot}55'$, say in twenty minutes. So that we may say, in round numbers, that 3,000 passengers per hour per yard of width of pavement is the outside that, under the best arrangements, the streets of a city can accommodate. And in this there is no allowance for the interference of one line of passengers with another

for street crossings,—for occasional stops,—to speak to a friend, to look in at a shop-window,—to avoid a porter carrying a parcel. Regard being had to this, it is very questionable whether, over a long line of street, a yard of width of pavement would allow of the passage of much more than 2,000 passengers, at the very outside, per hour. Here, then, is another limit, which no railway facility can evade. The more readily a mass of passengers are brought to a central station, and the more easily and suddenly they are poured forth on the streets, the closer do we come to a block from mere plethora of traffic. The tendency is obvious,—the result is unquestionable. It is not so easy to indicate a remedy.

The question which in the metropolis is thus setting up its prickles in so many ways, takes an entirely different shape in the manufacturing districts, although the underlying principle is the same. In London it is the physical possibility of passing an increasing amount of traffic through a limited amount of space that is the difficulty to be met. In Manchester, Sheffield, and other places it is the cost at which the transport is effected that is, at present, the most serious part of the story. For passengers the question is, perhaps, less urgent than for goods. At all events, we have before us the remarkable fact that whether an enormous outlay is made in order to accommodate an enormous body of passengers, as in the case of the underground railways; or a smaller, but still considerable outlay is made, to accommodate a smaller number, as in the case of tramways, or the entire outlay is restricted to the provision of horses and vehicles, as by the omnibus proprietors, the cost per passenger journey is very nearly equal. The average lengths of these journeys are not ascertained, but presumably they will not very much differ by the three routes. The average receipt for passengers on each of these three routes is almost exactly twopence. But the railway company carry their passengers for one-third of the cost (for equal receipts) at which the omnibus company carry theirs. The two-thirds margin, however, does not make up the dividend of the railway company to more than five-eighths (or, indeed, to quite five-eighths) of that of the omnibus company. It would thus seem as if the limit of cheapness for urban passengers had been attained, as far as our present condition of science goes; and moreover that the omnibus, with all its defects, is, at the present moment, the cheapest medium of urban traffic. As to the establishment of a third plane of transport, as in the case of the elevated railways of New York, we have no working details. But if anything could add to the discomforts attending on a city abode, we should think that the elevated railway would bear the palm among the causes of annoyance.

This cost, which alike in the case of the railway, with its enormous, and of the tramway, with its moderate, traffic, enables the old, inartificial pair-horse vehicle to hold its own against the combined efforts of science and of capital, is felt, and that in a more aggravated form, as to freight. It is the calculation of the French statists that the cost of transport has been reduced, by the railway system, to one-fifth of its former amount. We cannot, from either our own experience or our own investigations, make the reduction quite so much. To one-third we think nearer the mark. Not but that the mere cost of locomotion has been reduced in a far higher ratio, only it is also the case that, *per contra*, we have to reckon not only on the interest on capital, but on the much larger proportion of dead weight that is carried by railway than by road. But if we take the mean cost of a penny a ton per mile, which is rather below what transport costs in England, as charged by a railway company over a run of, say, 100 miles, this has to be compared not only with the charges on the Continental railways, but with those of the Continental canals. The reduced rates now in course of establishment on the French railways will allow of the transport of goods at 30 per cent. below English rates,—taking rates that will pay 4¼ per cent. on capital. But on the French canals the cost of transport is just the half of this reduced cost on the French railways. Thus the difference of sending a ton of goods for a hundred miles on an English railway and on a French canal is the difference between 9s. and 3s. 2d. Is it surprising that such a difference is beginning to tell heavily on our manufacturing industry?

There are signs that in many parts of England this difficulty may soon be obviated by the re-opening of the canals. But there are yet more significant indications of the migration of industry to the seaboard and to the sides of navigable rivers, as the Clyde, the Tyne, and the Tees. Here, then, comes in again the architect's concern with the question of capacity. While the architect is doing all he can to make the most of an urban area, and is at this moment in doubt how far the need for larger offices, and more numerous stories, and every contrivance for accommodating a larger number of persons, in a better manner, on an area contrived for the abode and use of a comparatively small number of residents, will be lightened or aggravated by the new element of telephonic communication; another element is silently at work. It may not be at work in London; and while the Thames continues to flow, it is possible that it will not become, at all events, unmanageable in the metropolis. But in other places it is certainly at work. It is felt at Sheffield. It is felt at Manchester, and that so practically that both Manchester and Sheffield have come to the conclusion that nothing can maintain their prosperity but free access to the sea; and at this moment it seems to depend on the providing of this access whether the capacity, and the rental value, of these and other great industrial centres shall continue to increase or continue to decline.

To the architect it may not so much matter whether his services are required in an old or a new centre of industry. For many reasons he may prefer the latter, if he have the choice. But to all those who are in any way linked to the soil as land-holders or as lease-holders the question of habitable capacity is one of the most intimate nature, and of essential importance.

Of the third mode in which this question of the capacity of area to contain population arises, we must say less than we would otherwise do, for fear of trespassing on the impartial limits prescribed to a scientific paper. But it is no debateable matter that in the outlying districts of Scotland and of Ireland there is at all events the assertion that the population presses too densely on the area. Or rather (for to call the 123 souls per square mile of Connaught a dense population is absurd) the land does not—it is asserted that it cannot—feed its children. In 1841 Ireland supported 224 souls on every square mile of her area. In 1881 the ratio had declined to 161 souls per square mile. We may have our own opinion as to the causes, but of the fact there is no room for doubt. For the Scottish island we are not in possession of details, but the movement is in the same direction. The remarkable part of the phenomenon is that the question of capacity of area for population is thus at the same time becoming urgent, in opposite directions, at the centre and at the extremities of the body politic. The concentration of population, the depletion of the rural districts, and the congestion of the urban districts, are phenomena common to the whole civilised world at the present time. Where there is large vacant space, as in the far west of America, the surplus is overflowing from the cup to the saucer, and the increase of population is replenishing the former wastes. But in countries where this safety-valve does not exist, the opposite phenomenon is constant. Area is insufficient to feed population, for want of hands, or at all events for want of adequately applied labour; or area is becoming unable to house or almost to hold population from the concentration of hands, not all, it is true, industrious, but most of them anxious for some industrial employment,—even if of a predatory kind. Should not a mighty problem of this nature be investigated with all the impartial skill at the command of the highest intelligence of the day?

Royal Victoria Coffee-hall, Waterloo-road, S.E.—This Friday, April 20, a number of distinguished members of the legal profession are going to hold a grand Temperance Demonstration. Sir Thomas Chambers, Q.C., M.P., the eminent and popular Recorder of London, is to preside on the occasion, and amongst the chief speakers will be the following gentlemen:—Prof. William Barber, Q.C.; Mr. E. W. Fithian and Mr. Thomas Suthurst (barristers-at-law), Mr. Swinford Francis, Mr. J. Maud, Mr. J. M. Todd, and Mr. Samuel Watson (solicitors). Admission to the hall will be at nominal prices, varying from one penny upwards.

ARCHITECTURE AMONG THE POETS.*

IF Shakspeare's references to architecture are few and far between, there is still less recognition of its existence among the other dramatists of the great dramatic period, and what references there are cannot be said to be very happy, though occasionally characteristic in one way or another. The conclusion to be drawn from a good many of the references in our poets of all classes in the sixteenth, seventeenth, and great part of the eighteenth centuries is that they regarded architecture with great indifference, and in many cases speak of it (as many average English people do now) as something that is in its nature opposed to practical considerations and common sense. This is evidently the kind of view taken by Ben Jonson. Almost the only reference to architecture in his plays is put into the mouth of the silly *Crispinus*, in "The Poetaster," the bore of the piece, who pesters *Horace* (act iii., sc. 1) with his talk and criticisms as they walk through the city:—

"By Phœbus, here's a most neat fine street, isn't it? I protest to thee I am enamoured of this street, more than of half the streets of Rome again; 'tis so polite and terse! There's a front of a building now! I study architecture too. If ever I should build, I'd have a house just of that prospective."

Crispinus seems to have been given to talk architecture, as he applies it aftewards to a lady's head-dress,—"I affect not these high gable-ends, these Tuscan tops, nor your arches, nor your coronets nor your pyramids." In one of Ben Jonson's poems, "To Penshurst," his own practical notions come out:—

"Thou art not, Penshurst, built to curious show
Of touch or marble, nor canst boast a row
Of polish'd pillars, or a roof of gold;
Thou hast no lantern, whereof tales are told,
Or stair, or court; thou stand'st an ancient pile,
And these not grudged, art reverenced the while;
Thou joy'st in better marks, of soil, of air,
Of wood, of water: therein art thou fair."

This feeling of the superior value of situation and usefulness above architectural merit in a mansion is expressed in much the same strain in a poem by Carew, "To his friend G. N., from Wrest," the latter being the name of a country seat at which the poet † was staying:—

"Here the architect
Did not with curious skill a pile erect
Of carved marble, touch or prophecy,‡
But built a house for hospitality.
No sumptuous chimney-piece of shining stone
Invites the stranger's eye to gaze upon
And coldly entertain his sight; but clear
And cheerful flames cherish and warm him here;
No Doric or Corinthian pillars grace
With imagery this structure's naked face;
The lord and lady of this place delight
Rather to be in act, than seem in sight.
* * * * *
Nor think because our pyramids and high
Exalted turrets threaten not the sky,
That therefore Wrest of narrowness complains,
Or straiten'd walls; for she more numerous trains
Of noble guests daily receives, and those
Can with far more conveniency dispose,
Than prouder piles, where the vain builder spent
More cost in outward gay embellishment
Than real use, which was the sole design
Of our contriver, who made things not fine,
But fit for service."

Not what one would call a poet's view of the matter, certainly, but apparently what was considered at that time a proper and sensible view to take of architecture,—as on one side it is, no doubt. The first Lord Dudley (he of the *Quarterly Review*) expressed much the same opinion in a terser fashion, when shown the design for his proposed new house:—"Very well for a Greek god, no doubt; but a modern gentleman requires offices." To return to the dramatists for a moment, the only two passages we have hit upon among the leading poets of the old school consist in a single architectural metaphor in Massinger ("Fatal Dowry"),—

"I raised
The building of my life, for seventy years,
Upon so sure a ground, that all the vices
Practised to ruin man, though brought against me,
Could never undermine";

and one passage out of all the voluminous (and often very unsavoury) pages of Beaumont and Fletcher ("Philaster"), which is curious as showing again that connexion of the notion of gold and precious stones with the idea of

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* See p. 491, *ante*.

† Carew joined to his reputation as a poet the official dignities of Gentleman of the Privy Council, and "Sewer in Ordinary" to Charles I.

‡ The meaning of this is certainly not very obvious. In this and the preceding quotation "touch" seems to be used in some sense now obsolete.

ancient architecture, which we have already noticed in Chaucer and Spenser:—

"No monument
(Though high and big as Pelion) shall be able
To cover this base murder; make it rich
With brass, with purest gold, and shining jasper,
* * *
Like the Pyramides,
* * * my little marble
(That only clothes my ashes, not my faults)
Shall far outshine it";

This idea about the Pyramids reminds us of the testimony of *Lepidus* ("Antony and Cleopatra"):—"Certainly I have heard the Ptolemies' Pyramises are very goodly things; without contradiction, I have heard that"; so that there seems to have been in those days, when Egypt was a kind of *terra incognita*, a prevalent idea that the Pyramids were remarkable for a barbaric splendour as well as for size. In the dramatic poetry of a rather later date there is one well-known passage, the description of a cathedral interior by Congreve, too familiar to need quotation, but which is really fine, and almost deserves the very exuberant praise it has received.

Going back to the poets, other than dramatic, we find in Cowley the recurrence again of the idea of the preference of unpretending to sumptuous architecture. In one poem he praises Florence as,—

"For stately buildings famed
And lofty roofs that emulate the sky,"

and of one of the characters in the same poem ("Constantia and Philetus"),—

"In roofs which gold and Parian stone adorn
(Proud as the owner's mind) he did abound."

The parenthesis here appears to be an insinuation against sumptuous buildings; and in the same spirit we find Cowley expressing his personal feeling in a poem called "The Wish":—

"My house a cottage more
Than palace, and should fitting be
For all my use, not luxury."

It may be doubted, perhaps, whether this was not an affectation of speaking, fashionable at the time,—a "pride that aped humility." At any rate, Cowley (who was a far rarer and "braver" poetical spirit than men like Carew and Waller) could feel keen interest in the restoration of a great public building, as he has shown in some very spirited lines, "On the Queen's repairing Somerset House," from which some passages are worth quoting. The building speaks *in propriâ personâ*:—

"In all my rooms and galleries I found
The richest figures torn, and all around
Dismember'd statues of great heroes lay.
* * * *
The gaping walls were cleft,
The pillars sunk, the rooms above me wept,
No sign of spring, or joy, my garden kept."

Then he goes on to say how changed is his face since his great mistress,—indeed, she might rightly be called foundress,—took up the matter:—

"Now I dare
Even with the proudest palaces compare
* * * *
Before my gate a street's broad channel goes
Which still with waves of crowding people flows;
And every day there passes by my side,
Up to its western reach, the London tide,
The spring-tides of the term; my front looks down
On all the pride and business of the town;
My other front (for as in kings we see
The liveliest image of the deity,
We in their houses should Heaven's likeness find
Where nothing can be said to be behind),
My other fair and more majestic face
(Who can the fair to more advantage place?)
For ever gazes on itself below
In the best mirror that the world can show.
* * * *
To assure yet my defence, on either hand,
Like mighty forts, at equal distance stand
Two of the best and stateliest piles which e'er
Man's liberal piety of old did rear.
Where the two princes of th' Apostles band,
My neighbours and my guards, watch and command."

This sketch of the palace as the centre point between the two great cathedrals shows a fine feeling for architectural association. The same event drew forth a poem also from Waller, too poor to be worth quoting; he also versified "upon his Majesty's repairing of St. Paul's," and compared Charles II. to Amphion, who caused the walls of Troy to rise. Returning to Cowley, we find him, although roused to some enthusiasm about Somerset House, returning to his anti-architectural ideas in his poem "On Solitude"; and certainly architecture is essentially an art at variance with solitary tastes:—

"Hail, old patrician trees!
* * * * *
Here Nature does a house for me erect;
Nature, the fairest architect,
Who those fond artists does despise
That can the fair and living trees neglect,
Yet the dead timber prize."

This is, of course, a poet's conceit, as Cowley would have found out if he had ever been reduced really to doing without the "dead timber," and to residing like one of the literary men in Henri Mürger's "Vie Bohémienne," who gave his address as "Boulevard ———, third tree, fifth branch." Cowley, however, returns to the charge in another poem, "The Garden," in which he shows how buildings were contrary to the divine order of things:—

"For God, the universal architect,
It had been as easy to erect
A Louvre or Escurial, or a tower
That might with Heaven communication hold,
As Babel vainly thought to do of old:
He wanted not the skill or power,—
* * * * *
But well he knew what place would best agree
With innocence and with felicity,—
* * * * *
God the first garden made, and the first city
Cain."

Pretty fancies, for summer weather, in which Cowley much delighted.

Dryden thinks no more of architects and architecture than his predecessors. The only lengthened reference to the subject in his poems is in a passage in his translation or paraphrase of Boileau's "Art of Poetry," in which he instances the overlaboured description of a mansion as an example of one fault in poetic style:—

"Sometimes an author, fond of his own thought,
Pursues its object till 'tis overwrought;
If he describes a house he shows the face,
And after walks you round from place to place;
Here is a vista, there the doors unfold,
Balconies here are baluster'd with gold,
Then counts the rounds and ovals in the halls,
'The festoons, friezes, and the astragals.'"

Dryden puts the last line between commas, as if he regarded the words used therein as architectural "shop" not admissible in poetry except in an apologetic manner. That a description of architecture in that piecemeal matter-of-fact way is unpoetical and uninteresting no one would deny, but not because of its length or elaboration, for modern poets who have really a feeling for architecture as an art can spend more space than that over a description (as we shall have occasion to see) without being in any way redundant or prosaic. As a further example of his respect for the profession of an architect, Dryden introduces elsewhere a description of a man who had been a successful but a quack physician, and after killing many people with his drugs, had retired to live at a friend's country-house, and showed what he was really good for by making great practical improvements in it, the moral from which is "Better be a good mason than a dull poet," mason and architect being apparently convertible terms. Swift seems to have known better than that; see one of his epistles to Stella, in which he says she is indirectly to be credited with any good that he may accomplish, as being the person who inspires him,—

"As when a lofty pile is raised,
We never hear the workmen praised
Who bring the lime and place the stones,
But all admire Inigo Jones."

Swift once or twice also presses architectural or building metaphors into his service, most pointedly in a poem on the true basis of happiness in married life ("Strephon and Chloe") equally remarkable for its real good sense and morality and its astounding coarseness of expression, the architectural simile being one of the few decent passages in it:—

"A prudent builder should forecast
How long the stuff is like to last;
And carefully observe the ground,
To build on some foundation sound.
What house when its materials crumble
Must not inevitably tumble?
What edifice can long endure,
Raised on a basis insecure?
Rash mortals, ere you take a wife,
Contrive your pile to last a life."

Thinking of the account lately published of the history of the Dublin Cathedral, and the state into which it had fallen before its restoration, one may fancy that the Dean of St. Patrick's had official reasons for being occupied with ideas derived from ruinous buildings.

Pope sings in the same tune as a good many of his predecessors and contemporaries in regard to the advantage of looking at architecture from a practical point of view; but he speaks in the tone of a man far more cultured in artistic matters than Dryden and Swift, as he undoubtedly was, and he handles the subject with far more knowledge of detail and far more power of graphic expression than most, or indeed any, of the poets of his era. The passage addressed to the Earl of Burlington (Epistle iv.), who was then publishing at his own expense designs by Inigo Jones, and the Antiquities of Rome, by Palladio, is full of force and picturesqueness, as well as artistic good sense; it immediately follows the well-known sneer at "Sir Visto," and at "Bubo," the latter

"A standing sermon, at each year's expense,
That never Coxcomb reach'd magnificence,"

a remark, the truth of which has been how often illustrated in the architectural speculations of wealthy but vulgar-minded people. Then he goes on, addressing Lord Burlington, to distinguish between truly sumptuous architecture and misuse of the resources of the art:—

"You show us, Rome was glorious, not profuse,
And pompous buildings once were things of use.
Yet shall, my lord, your just, your noble rules,
Fill half the land with imitating fools;
Who random drawings from your sheets shall take,
And of one beauty many blunders make;
Load some vain church with old theatric state,
Turn arcs of triumph to a garden gate;
Reverse your ornaments, and hang them all
On some patch'd dog-hole eked with ends of wall;
Then clap four slices of pilaster on't
That, laced with bits of rustic, makes a front;
Shall call the winds through long arcades to roar,
Proud to catch cold at a Venetian door;
Conscious they act a true Palladian part,
And if they starve they starve by rules of art."

With the exception of the last couplet, which implies rather an incorrect notion of the Palladian system, there is sense and sound criticism in every line of that, and a whole architectural essay might be written on the various points which it suggests, in some of which Pope is quite prophetic. His little epigrammatic poem on "The Duke of Marlborough's House at Woodstock" is also very good, and in the same vein of shrewd and satirical sense:—

"See here, Sir, here's the grand approach,
This way is for his Grace's coach;
There lies the bridge, and here's the clock,
Observe the lion and the cock,
The spacious court, the colonnade,
And mark how wide the hall is made!
The chimneys are so well design'd
They never smoke in any wind.
This gallery's contrived for walking,
The window's to retire and talk in;
The Council-chamber for debate,
And all the rest are rooms of state.

Thanks, Sir, cried I, 'tis very fine,
But where d'ye sleep, or where d'ye dine?
I find by all you have been telling,
That 'tis a house, but not a dwelling."

It is noticeable that Pope, in his modernised paraphrase of Chaucer's "Temple of Fame," has architectural sketches entirely his own, and having no reference to anything in the original poem; and these architectural images are of a more imaginative and sumptuous turn than is usual with him. The difference between the architectural references in Chaucer's poem and Pope's free imitation of it is characteristic. Chaucer's is the old barbaric architecture before referred to, as so common in the imagination of poets in a juvenile age. He sketches a "castell," in which

"All was of stone of berile,
Both the castell and the toure,
And eke the hall, and every boure,
Without peeces or joynings,
But many subtell compassings,
As babeuries and pinnacles,
Imageries and tabernacles,
I saw, and eke full of windowes
As flakes fallen in great snowes."

The last expression is very curious. Does it refer to the shape of the Pointed window, or of the compartments of the tracery? Perhaps it is merely a hyperbolical simile to indicate the number of the windows. A further incident in this part of the poem is the introduction of pillars of different metals and other substances, as pedestals for the statues of famous men, and apparently selected for the supposed suitability of the material in each case, or its gradation of costliness. Thus Homer stood upon an iron pillar, Virgil upon one of "tinned iron clere," which sounds like galvanised iron; it is difficult to understand quite what Chaucer meant by the expression, unless it were iron coated with tin to give lustre. Ovid stands on a pillar of copper, and so on. Pope adopts the idea of the columns, but describes them at much length and gives them great profusion of ornament, not with any very special power of description, however; but he raises a structure over these columns (which are planted in a circle) of which there is no hint in Chaucer; a dome covered with gems, under which Fame herself was enthroned, and which reflects the various coloured lights of the pavement, and the light radiating from the throne. Unfortunately, the description is too conventional, and too full of mere rhyming-dictionary lines, to convey any sense of reality

to the reader; and though the passage is ambitious and grandiose in intention, it is not worth quoting. In the description of the exterior of the Temple, at the commencement of the poem, there are one or two points made, such as the description of the western front,

> "Crown'd with an architrave of antique mould,
> With sculpture rising on the roughen'd gold."

The latter expression indicates an eye for the effect of texture in surfaces, which seldom crops up in architectural allusions of the eighteenth century, and since the Mediæval period seems not to have been revived till our own day. On the whole, however, Pope is much better in his references to existing types of architecture than in his attempts at idealising architecture; which latter is always a difficult task, whether for poet or draughtsman. Notice should be taken, however, of one very clever and well-expressed poem, the epistle to Addison, occasioned by some dissertations of the latter upon medals. Here Pope draws, in very picturesque language, a contrast between the comparatively transient nature of great buildings as monuments, how they lose their meaning and history, and the durability of fame inscribed upon medals, in profiles and inscriptions:—

> "Ambition sigh'd; she found it vain to trust
> The faithless column or the crumbling bust;
> Huge moles, whose shadows stretch'd from shore to shore,
> Their ruins perish'd, and their place no more.
> Convinced, she now contracts her vast design,
> And all her triumphs shrink into a coin,"—

which last is a very bad rhyme, certainly, but he touches off happily the medal and its connoisseurs:—

> "With sharpen'd sight pale antiquaries pore,
> The inscription value, but the rust adore;
> This the blue varnish, that the green endears,
> The sacred rust of twice ten hundred years.
> To gain Pescennius one employs his schemes,
> One grasps a Cecrops in ecstatic dreams,
> Poor Vadius, long with learned spleen devour'd
> Can taste no pleasure since his shield was scour'd;
> And Curio, restless by the fair one's side,
> Sighs for an Otho, and neglects his bride."

But in spite of this preference of medallic over architectural glory, the poem contains two or three lines about architecture which strike a rather new note, and connect it with a more modern phase of feeling on the subject; but this link may go to piece the next portion of the chain.

SOME TRAITS OF CANOVA AND THORWALDSEN.

IT is not only from the lives in Rome of these two celebrated sculptors having been in great degree contemporaneous that they are so often mentioned together, but also from the fact that they not unfrequently took the same subjects, their works thus coming into direct competition. Canova avowed that his ambition was to reinstate the Greek heroes and heroines on their pedestals; nevertheless, he was scarcely so successful in catching the simple spirit and sentiment of classic art as was his Northern compeer. His Hebe, for instance, is not exactly the Hebe of Olympus, but as an elegant sylph acting as a cup-bearer it has no equal.

There is a very graceful story uniting the memory of these two great artists redounding much to the honour of Canova, who is said to have had a most liberal spirit in his appreciation of others. At the time in question he was in the plenitude of his employment and reputation when Thorwaldsen was comparatively a beginner, having been but a very few years in Rome, during which period he had met with but little encouragement, and had chiefly subsisted upon the scanty pension which he had gained in competition at the Copenhagen Academy. Since he had been in Rome, however, he had produced a very fine model of a figure of Jason, which attracted great admiration. This, however, took no substantial form; and the young sculptor became, not only disappointed, but so much discouraged that he resolved to quit Rome and return to his native land. It was at this juncture that the generous feeling of the Italian mature sculptor intervened to the lasting benefit of the young Dane. Mr. Hope, the English banker, having visited Canova with a commission to execute a statue of high art for him, and the sculptor not accepting it, pleading his many engagements of that nature, added, "There is a young Dane here who has executed a model of a statue in a new and grand style of art: go and see it, and if it pleases you you cannot do better than transfer the commission to him; he is well worthy of such an opportunity." The Englishman followed Canova's advice, and the pleasant consequence was that the Jason was ordered to be produced in marble. At this time young Thorwaldsen's trunks were actually packed to leave the city, but, thus turned from his resolve, he remained in Rome to earn an undying name.

Although no doubt the Dane was fully sensible of the opportune kindness shown him on this occasion by the Italian master, their friendship does not seem ever to have extended to close intimacy, and in after years in reference to Canova, Thorwaldsen spoke as follows to a friend:—"When Canova had finished a new model he would ask me to come and look at it. If I made any observation, as, for instance, that such or such a fold of drapery might be altered with advantage in such or such a way, he always acknowledged the truth of my suggestion, and thanked me warmly, but he never made the alteration. If I asked him to come to my studio he was sure to pay me a visit, but confined himself to praising my works most highly, but never made a suggestion." It is to the honour of Canova, however, that he held the same tone of laudation to others as he did to the artist himself, and when the Adonis of Thorwaldsen was in hand, he said to Madame Brun that she should go and inspect it. "It is an admirable statue," he remarked, "noble and simple, in the true antique style and full of feeling. Your Danish friend, madame, is divine!" And then, after a pause, added, "Ah! it is a pity that I also am not young!" Canova, however, was born in 1757, and Thorwaldsen in 1770, so there was only thirteen years' difference between them; but what may not be done in art in thirteen years, in the prime of life and vigour?

There is no doubt that Thorwaldsen surpasses Canova in *relievo*. Indeed, the title of "Patriarch of *Relievo*" was applied to him by the Romans themselves for his mastery in that difficult department of sculpture, in which true form is simulated by false form, and the round expressed by the flat. In his facility in clay in this branch of the art he was without a rival among the moderns. In design, however, this is not the case, for our own Flaxman's field of fancy and composition was vastly wider than that of the Dane, and, as far as we know, than that of any sculptor who ever existed. His compositions, both from classic and sacred subjects, are of a marvellous diversity as well as beauty, whereas both Thorwaldsen and Canova adhered closely to the traditions of classic arrangement. Thorwaldsen, however, would knock off a *relievo* of a couple of figures in a morning, without which marvellous rapidity he could not have carried through the multitude he produced.

In comparing the styles of the Italian and the Dane, it is manifest that the man of Northern clime was the simplest. His celebrated Mercury, indeed, might have been of the purest time of Greek art. It is founded on an incident in the story of Io, who, in one of the amours of Jupiter, was transformed into a beautiful heifer. Juno, however, not deceived by this ruse of her inconstant lord, employed Argus to watch her, for, as he was gifted with a hundred eyes, it was supposed that some of them would keep awake. The craft of Mercury, however, who was deputed by Jupiter to deliver her, was too much even for his vigilance. Mercury played him to sleep with his lyre and then slew him. The moment taken for the subject of the statue is when Mercury, having succeeded in composing the herdsman to slumber, stays his performance and is in the act of drawing his sword from its sheath. The attitude may be characterised as a half-sitting one, and the composition may be regarded as perfect, natural, vigorous, varied in line, full of expression, and truly Greek in style. The sculptor, however, has taken the licence of substituting Pan's pipes for the lyre, as more convenient to his purpose.

There is no male statue by Canova so Greek in style as this one by his compeer, and in fact in this respect it is difficult to find its equal in modern art, and perhaps the nearest approach to it in this regard is the hunter of our own John Gibson which, although not so beautiful a composition as the Mercury of the Dane, is remarkable for its classic quality.

The Perseus, by Canova, is one of his finest male figures. The subject had been before executed by Cellini of large size, and every lover of art interested in its difficulties must have derived much amusement from that part of his delightful autobiography in which he gives a vivid account of the casting of the group of that statue and Medusa. Canova's statue, however, represents a different moment, and is without the decollated body, and exhibits only the head, of Medusa, which is held up to freeze the assailants of Perseus to stone, as narrated by Ovid. His figure is emulative of the Apollo of the Belvedere in the Vatican, and it had the perhaps appropriate office, while that statue, with many other antiques, was removed to Paris during the time of the first Napoleon, of being substituted in its place, from which circumstance it received the name of the *consolatore*. This substitution may have helped to suggest the somewhat fanciful idea that the Apollo himself may have originally held an Ægis with a Medusa's head affixed on it, whereas there can be no doubt that he is more fitly portrayed as in the words of Byron, "The god of the unerring bow." The Perseus is unquestionably a very beautiful figure, yet it may be open to the comment that it is composed too much in a plane, which arrangement is more suited for a *relievo* than for a figure in the round, and in this regard as well as in supreme nobility of aspect comes much short of the Apollo himself. But that ancient work seems to be unapproachable in its peculiar dignity of active beauty except by its twin sister the Diana of Versailles.

Venus and the Graces formed subjects for the chisels of both the Italian and the Dane. Canova did two Venuses, Thorwaldsen one. Canova did one group of the Graces, Thorwaldsen two. This enumeration is, of course, independent of the *replicas* which were made, which liberty is the acknowledged birthright of the sculptor's art; the copyright not passing with the original work except by special stipulation. It is difficult in respect to the above productions to conclude to which sculptor belongs the palm. The Venus of the Pitti Palace of Canova has most nobility of mien and is more a lady than the Venus of Thorwaldsen, who has more of the look of a very pretty peasant, but which of the two is the most charming it is not easy to say. Both Canova's Venuses are partly draped, and in both cases the goddess may be supposed to be represented as having just left the bath and to have partially resumed her dress. In Thorwaldsen's she has the apple, and thus might be called a Venus *Victrix*. This she holds in her right hand with some degree of triumphant coquetry, while with the left she is taking up the somewhat scanty drapery which she had deposited on the trunk of one of the oak trees for which Mount Ida was famous. The figure is beautifully composed, and is plump without being overcharged. One *replica* of it is at Chatsworth.

The Venus of the Pitti Palace also is extremely graceful, the throat being curved in turning the head over the shoulder quite as much as the warrant of nature would support; but, no doubt, Canova witnessed the action. The figure is perhaps a trifle flat from back to front, but that may be a matter of taste, for its character is long in proportion, much more so than either the Venus de' Medici or the Venus of Thorwaldsen. The back, which is quite uncovered, is especially admired, but the front is much concealed not only by the arms and hands of the figure, but by the drapery which they hold pressed to the form. Its contours not only meet the requirements of four principal views being charming, but may be said to do so even to the number of the seven aspects which Cellini mentions that a statue should satisfy, which practically means that it should bear the eye of the critic in scanning it all round, as Lucian said the Venus of Cnidos did. It is well balanced in general outline, and compact and symmetrical in mass in the front and back views. This is a quality which much conduces to the value of a statue in an architectural point of view, as such a work is much more easily placed than one of irregular outline, which rarely harmonises with a central position, but rather seems to look for a situation on one side, so as to be balanced on the other by another of corresponding form; and this appears to be a point well worthy of the attention of every sculptor who may aim at a central position for his work. The Laocoon, for example, is adapted to a central situation, as it is pyramidal, or, at least, has the general form of a flame but slightly blown aside. The Venus de' Medici is admirably balanced in outline, which has tended to make her so great a favourite, and so also is the graceful antique group of

Cupid and Psyche. The Michael and Satan also of Flaxman is composed after this method, which well fits it for its situation at Petworth, and that in which the original model stands in the saloon in the London University.

In returning to the subject of Venus, it may be acknowledged that the most salient point in her mythologic history is that of her success in the competition for superior beauty with the Queen of the Skies and the Goddess of Wisdom. Canova did not touch this point in his two celebrated statues. Thorwaldsen represented her after her conquest, with the golden prize in her hand; and it is the same with the statue by our own Gibson. Praxiteles in his most celebrated statue of the goddess did not choose this moment: she had not the apple, but was shown as she stood before Paris previously to receiving it, so that each visitor to the little temple at Cnidos, which was her shrine, might have fancied himself the shepherd on whose judgment the meed of triumph was to depend. This statue, however, in Parian marble, which was accounted one of the wonders of the ancient world, was quite nude, like that of Thorwaldsen, but the pendent drapery, although apart from the figure, was held so as to screen her in degree from the direct gaze of the son of Priam. Which was the finest conception cannot well now be decided, as the fatal conflagration of the Lausian Palace in Constantinople, whither this glory of the ancient chisel had been removed, has deprived us of that version of the goddess; but it may readily be welcomed that the above idea of her, derived from the descriptions of Pliny and Lucian, possesses a peculiar and appropriate delicacy of sentiment. And, indeed, it may afford some marvel, as we mentioned in a former article, that they have not spurred modern artistic ambition to the attempts to resuscitate her. Flaxman, among the illustrations of his lectures, gives a sketch of his view with respect to her. But we are not aware that he ever followed it out in a model, or that any other modern sculptor has ever undertaken the arduous but inspiring task. Perhaps it remains for the United States of America to offer a prize for this being carried into effect, which would be an art project worthy of that great but comparatively youthful country.

Canova, in the year 1815, visited England, but declined any commissions offered him while in this country, as he said that we had our own competent native sculptors, and that if any one desired a work of his, the order must be given to him in his own Italy. On inspecting the Elgin marbles with the utmost attention, he expressed his extreme admiration of them, and added that to see the back of the Theseus alone was worth a journey from Rome. After his return also to his occupation there in his own studio he averred that his work was much benefited by what he had seen in our Museum of the sculpture of Phidias and his school. Thorwaldsen was never in London, but remarkable as he was for his powers in *relievo*, we may well conceive, by the expressions of his compeer in respect to the Parthenaic works in the round, how much Thorwaldsen would have been delighted with those in flat in the frieze. It may, indeed, be said that his own magnificent *relievo*, or rather series of *relievi*, illustrating the "Triumph of Alexander," offers the nearest approach to that classic work that has ever been effected by a modern artist. He produced two or three *replicas* of it, each differing in some degree from the other, each also, it is said, having been an improvement on the former one. Canova never designed so important a *relievo* as this one, although he did a great many not nearly so extensive, some of which possess great beauty. It may be doubted, however, whether any of them are so attractive and charming as the "Night and Morning" by the Dane, which not only were repeated several times of the original size in marble in the studio of the sculptor himself, but also on a variety of scales by others, forming also the subjects for *cameos* without end, and also for decorations for vases and for *plaques*, &c. This "Night and Morning," indeed, may be said to be household goddesses all over the civilised world.

Although Canova visited London, he declined to go to St. Petersburg, notwithstanding that he received warm invitations from the Russian court, accompanied with proffers of employment, of which, however, as is well known, he had abundance during his life after he had first made a name. He was in Paris, however, more than once; indeed, Napoleon sat to him there for his portrait as well as at Rome, and also for an heroic classic statue of him executed for himself, which now by the irony of Fortune is in Apsley House. In his communication with the great conqueror the simple Italian sculptor was very candid in his remarks. By the desire of Napoleon he examined the Musée of the Louvre for the purpose of ascertaining what improvements could be made in the disposition of the many celebrated antique statues which had been spoliated at that time, chiefly from Italy, to add to the treasures of that grand collection. On being inquired of by the consul whether they were not judiciously arranged, he replied with expressive brevity, "*certo stavano meglio in Italia*,"—certainly they were better placed in Italy,—a comment which comprised two meanings, a simple opinion as to arrangement, and an implied rebuke. There is no doubt, however, that Canova was a favourite with Napoleon. There was, indeed, some country kinship between them, as the Bona partes were recorded to have been originally of an Italian family before they removed to Corsica. In return, no doubt, also, Canova admired the renowned warrior and ruler, as, indeed, almost all did who came within his magic influence, but his real regard was reserved for Josephine, of whom he ever spoke with a gentle deference approaching the affectionate. It was no marvel that he was highly esteemed by those in high power at that time in France. His style was so congener with the fashions of government culminating in the Empire, for the Republic, Napoleon, and Canova, all emulated the Classics. The very furniture of the Empire was a sort of thready Classic, and the dress of the ladies and the modes of their coiffure were something between the Greek and the Roman, with a something superadded which we English are fain to characterise as peculiarly French. In all this the somewhat artificial poses of the sculptor's female figures, the play of their delicate hands, and the little tresses surrounding the oval of their faces found their counterpart, and in return re-acted on the fashion and toilettes of the day. But in this respect the art of Thorwaldsen was quite different. There is a Northman's simplicity and Scandinavian force in his work which has nothing in common with the style of the French Empire, nor, indeed, with any mere fashion, and is thus more calculated to last in favour with the world of art.

Canova doubtless had a peculiar view of beauty in the female face. He carried to an extreme the straightness of the classic profile from the roots of the hair to the tip of the nose, and made the upper lip almost of an exaggerated shortness. Indeed, however refined his female visages are, they cannot justly be regarded as very natural. There is in them occasionally a degree of affectation, and the same remark may apply sometimes also to the expression of his figures, as has been observed of his group of the Graces. Both Thorwaldsen's groups of the same subject are free from this, but are somewhat attenuated, and neither his nor those of Canova are so finely composed as in the small picture of the Graces, by Raffaelle, in the collection of Earl Dudley and Ward, executed by the great artist in 1508, of which there is an excellent engraving of the same size as the original picture, produced by F. Forster, in Paris, in 1841. Indeed, there is every probability that Raffaelle, like his compeer, Buonarotti, could have been a fine sculptor as well as magnificent painter, if he had had time during his short life to apply himself to both arts, for many of the groups and figures in his pictures are suited, with but little variation, to the sister art.

Both our sculptors seem to have possessed amiable dispositions, and, although in the latter portion of his life Thorwaldsen has been charged with parsimony in trivial things, he is credited with having had a very open hand in relief of distress, and that he would sometimes astonish by the amount of a gift. Canova, by all who had his friendship or acquaintance, is spoken of as one of the most kindly of men, and among the minor traits of this disposition it is told of him that, one morning a trusted assistant having come late to the studio, and in response to a remark thereon by the sculptor having replied that it was because he did not know the time, not possessing a watch, Canova drew forth his own and presented it to him.

Before we leave the subject of Venus and the Graces, we may remark that Gibson, in his celebrated tinted Venus, which has been the subject of so much discussion, followed the example of Canova in representing her as partly draped, which treatment he used to speak of as of advantage to the appearance of the flesh of a statue as affording it contrast by its many shadows. However, it is totally unlike the same subject as presented by either of the above sculptors, but bears more resemblance, especially in the legs, to the Venus de' Medici. It is said that at one time he thought of transforming his Venus into an Eve, but that he was deterred from this by the requirement in that case of concealing by her hair the back of the neck, to which arrangement, as he considered that a very beautiful part of the female form, he could not reconcile himself.

Both Canova and Thorwaldsen received great honours during their lifetime, and their reputation had not to wait for the fiat of posterity. Canova was created a Marquis, and Thorwaldsen was treated on an equality by crowned heads. They both also received magnificent funeral honours. The body of Antonio Canova lay in the Cathedral of St. Mark, and received solemn obsequies there before it was removed to his native village of Possagno, among the Asolano hills, at the foot of the Venetian Alps, where it had always been his desire that his remains should rest. Those of Bartholomew, by his intimates called Bertel, Thorwaldsen found their repose in a mausoleum beneath the museum of his works at Copenhagen, which contains, among many others of his productions, his famed series of the statues of Christ and the Apostles. They both departed this life in the manner they desired. Andersen, the celebrated author, narrates that having told Thorwaldsen of the sudden and painless decease of Admiral Wulff, the translator of Shakspeare and Byron into Danish, the enthusiastic exclamation of the aged sculptor was, "Well, and is it not an admirable and enviable death?" Just a year after this, in the Theatre Royal at Copenhagen, Thorwaldsen had just risen to let a lady pass by his stall, when seeing him bending down she inquired, "Have you dropped anything, Sir?" He made no reply, and was supposed to be fainting. He was taken without delay to the Charlottenberg Palace close by, where an attempt was made to bleed him, but no drop of blood followed. The great sculptor had ceased to live.

Canova's decease was on the contrary gradual, but he was perfectly resigned, and his expressions were those of a sincere Catholic. After receiving the last offices of the Church one of his remarks was, "We come into this world to play our parts; and to do our duty. Happy is he who has done it well."

In their youth both these great men fully illustrated the saying of Sir Joshua Reynolds,—"The enthusiastic desire to excel is the first thing required to excel," and in the close of their life they still kept up the same spirit. With Canova the winter of 1820–21, the last of his life, was passsd by him with more than his usual diligence on important works, and with Thorwaldsen the morning of his decease was spent in modelling. The Italian died in his sixty-fifth year, in 1821, in Venice, at the house of an intimate friend, in the Piazzo San Marco; and the Dane in his seventy-fourth, at Copenhagen, in 1844.

A BIOGRAPHICAL SKETCH AND ITS LESSONS.

THE scene of this narrative is laid in the Isle of Ely,—that solitary eminence which, encircled by the sluggish Ouse, breaks the monotonous level of the lone fen country,—whereon 1,200 years ago Saint Etheldreda in her flight from Egfrith, laid the foundations of her monastery, rousing with hymns of unaccustomed praise the wolf and the otter from their lair, and the stork and the bittern from their immemorial home.

The lapse of centuries has wrought but little change in this desolate region. No forests have been cleared by the encroaching industry of the husbandman, nor has the earth been cumbered and the heavens darkened by the hideous but inevitable accompaniments of our spreading civilisation. Far as the eye can reach the land lies wrapped in its mantle of grey mist, its long level lines broken here and there by a row of poplars, standing as sentinels over the quiet little homesteads which dot the landscape, their red tiled roofs and chimney-tops telling sharply out in "the purer ether and diviner air" above

the level of perpetual mist. The description of the locality by an old chronicler will in the main apply. Still "it is a watery waste, affording only deep mud with sedge and reeds, and possest by birds, yea rather [he adds] much more by devils."

And such was its aspect in the first quarter of the fourteenth century, in which our story opens. It is one of the saddest periods in our annals. The hand of a recent historian, whose early death we all deplore, has painted it for us with unexampled power and fidelity, and it is scarcely possible to deepen the shades of the picture he has left us. A despotic king, a dissolute Court, a turbulent baronage "grinding the faces of the poor," a despairing peasantry, a country harried by bandits; wars in France, wars in Scotland, wars on every hand, just and unjust, waged on any or no pretext, and pursued with unrelenting and undiscriminating ferocity; and behind all this the twin spectres of plague and famine! The conflict of man with man, and of nation with nation, was as fierce and persistent as though the message of peace on earth had never been delivered, and man's only business here was to kill and be killed. And yet one catches here and there, as through a rift in the encompassing gloom, glimpses as of a brighter world, visions of peaceful and holy lives, homes of art, culture, and religion.

In the year of grace 1314, the fatal year of Bannockburn, with its savagery and shame, there is, so the chronicler of St. Alban's tells us, in his cloister at Ely, a young monk, renowned for skill in the goldsmith's art. The word was then accurately descriptive. If one reflects for a moment upon the part which that art played in both ecclesiastical and civil life, the priceless relics which have come down to our day, the countless treasures which were "borrowed" by monarchs perplexed between a hungry army and empty coffers,—on those other treasures which were cast into the melting-pot by a rapacious king and his greedy court; if one thinks of the sacred vessels used in the services of the Church, the shrines, the lamps, the jewelled crosses, the costly trappings of kings and courtiers, one will begin to realise the scope of that beautiful art in which this young monk excelled, and to appreciate that skill which could distinguish him amongst so many cunning fellow-artists; but, in addition to this special gift, he was, we are told, no less remarkable for his acquaintance with the mechanical arts, and their application to the business of life. Clearly, then, this is no ordinary man. A proficient in both art and science; endowed, moreover, with other graces, of which we shall hear more anon. Thus equipped, he turned his mind, the records say, to the study of architecture. We need no assurance that the art never had a more promising student, and we can well believe that distinction in his new sphere was sure and speedy. His bishop, John de Hotham, a munificent patron of art, a courtly prelate, and a Lord Chancellor to boot, employed on Royal embassies, speeding hither and thither at his king's behest, charged with delicate and weighty duties, having a wide knowledge, therefore, of men and cities, and versed in all the lore of statecraft,—he saw the stuff of which this monk was made, and quickly got him elected sub-prior, charging him with, as there is some reason to think, the design,—certainly, with the joint execution with John of Wisbech,—of the beautiful St. Mary's Chapel (now Trinity Church), attached to the cathedral church of Ely. The foundation-stone was laid by our hero, Alan, in 1321, and we have clear evidence that he was at the same time engaged in the design of Prior Crauden's Chapel, the new sacristy, and many minor monastic buildings. So evident is his supremacy in his new calling that he is forthwith elected sacristan, and, in virtue of this office, he has the sole charge of the fabric of the cathedral and its accessory buildings.

There were pressing reasons why this charge should be put into capable hands. The central tower of the cathedral,—the weak point in cathedral construction from that day to this,—had been giving the monks some anxiety, causing them sad distractions during the singing of the Divine offices, ominous cracks and fissures in the four supporting piers making themselves unpleasantly obvious. Alan at once closed the choir against the monks, screened off the western arch of the tower, and allotted the nave for the services of the church, doing, in in fact, exactly what is now being done in the neighbouring cathedral of Peterborough. Nor were the precautions in Alan's case taken a whit too soon, for on the night of February the 12th, 1322, the massive Norman tower, without further warning, fell "with a sound as of an earthquake," shaking the town to its foundations, frightening the poor monks out of their five wits, startling the screaming wild-fowl from a thousand marshes, and breaking the heavy slumbers of the husbandman in many a neighbouring grange. With the morning's light the extent of the calamity was all too evident. The tower in falling had carried with it the western-most bays of the choir and the attached portions of both transepts, burying all in hopeless ruin. The terror and perplexity caused by the catastrophe is well expressed in the records of the time. But Alan was equal to the emergency, and we know how he set about his work of repair. After clearing the site he removed the bases of the four old piers which had given way down to the floor level, and there he left them; advancing the boundary of his new tower one bay into each arm of the cross, he secured eight points of support for his central structure in place of the original four. These eight piers he proceeded to underpin with concrete, and he satisfied himself by careful excavation of the sufficiency of his new foundations.

His next step was, with prudent forethought, to repair the marsh causeways by which his heavy loads of stone and his other materials were to travel, and he strengthened the bridges they would have to cross. One road, characteristically named Seggewick, was repaired at a total cost of 7½d., a fact which throws a little light on the altered value of our modern currency. He next despatched trusty messengers to bargain for building materials. "Simon the glazier's boy" was sent to Barnack to bespeak stone, and after the manner of boys contrived to loiter out of his way, and lose himself. Oak, and lead, and other necessaries were duly bargained for, sheds were erected for the workmen, and Peter, the mason, and his brother were put in charge of the stonework. The story of the building of the octagonal dome and lantern is too trite for repetition. One of the happiest thoughts that ever entered the mind of man, it was carried out with surpassing skill. The result was not only supremely beautiful as a work of art, but it was, in every sense of the word, original. There is no evidence to show, all the evidence is against the presumption that its architect ever travelled beyond his convent bounds, or was acquainted, except, perhaps, by hearsay, with the domed churches of the East. Moreover, the system of construction used in them differs in principle from that employed at Ely, and Alan of Walsingham's masterly work remains to this day unique amongst the cathedrals of Europe.

His next work was to rebuild the western bays of the choir, and these, as re-designed and constructed by him, rank amongst the most beautiful of all the examples of our Middle-Pointed English Gothic.

In the year 1341, upon Prior Crauden's death, Alan was elected prior, and in 1344 his convent showed further their sense of his worth by electing him with one voice to the then vacant bishopric. He ceased, as a matter of course, to hold the office of sacristan. The works so ably designed by him had been carried to a successful completion, only the internal decoration and fittings remaining to be done, and these could be carried out by subordinates with such general direction as Alan might still be able to exercise. But the election of the convent was set aside by the Pope in favour of one Thomas de l'Isle, a Dominican friar, who Micawber-like, was "on the spot" (Avignon) when the vacancy "turned up." The benefices were at this date filled by foreigners, and many and angry were the remonstrances on the subject. It was alleged that "the unlearned and unworthy were promoted rather than the poor and learned," and the high places in the Church were occupied by "suspicious persons who do not know the faces of their flocks, nor understand their language, neglecting the cure of souls, and shearing the sheep instead of feeding them." Alan was, on the next opportunity, a second time unanimously elected by the monks as their bishop; but again the choice of the convent was overruled, and Simon Langham, afterwards archbishop of Canterbury and cardinal, was consecrated in his stead.

In 1363, after fifty years of residence amongst them, his convent continued to hold him in undiminished esteem, but he was then approaching man's allotted limit of three score years and ten, and although the date of his death is not certainly known, it is believed to have taken place in the following year.

It is recorded of him that he was not only, as his works indeed testify, a consummate artist, a daring and successful engineer, but that he was a wise and capable administrator, and that notwithstanding the vast outlay which the works undertaken by him occasioned, the convent and its possessions grew and prospered under his rule. He was buried in the church he loved so well, and which his genius has done so much to adorn; and his epitaph, no longer extant, breathed a hope in which we all must surely join, that he would be rewarded by a seat amongst the just in Heaven.

These few notes concerning him have been set down partly because his career embraces that half of the fourteenth century, which exactly marks the culmination of our native architecture, an arc cut from the very zenith of that great artistic movement which, rising in this Western Europe in the twelfth century, declined and disappeared in the sixteenth; partly also because this Alan of Walsingham combines in the range and catholicity of his attainments all the qualities of a typical architect.

His life has many lessons for us. His education was such as it befits each one of us to adopt. The training of the eye and hand in works of art proceeding with equal steps with the study of physics and the natural laws which govern the universe. Then a practical acquaintance with building work,—probably working as an artificer,—certainly in the capacity of a "clerk of works" before his final assumption of the chief control. We see that a great architect is necessarily a man of many gifts, and that his work offers a field for the exercise of the highest qualities. We see also that then as now the highest honour does not always wait upon merit; that as in our day so in his, "Princes foot it in the dust, while lacqueys to the saddle vaulted"; and finally, for our encouragement and consolation, that time sets all things right. The prelate who snatched the bishopric from Alan,—what is he now to us? His name would be forgotten but for his accidental connexion with that of him whom he supplanted, while his defeated rival has taken his place for ever with the great of all time.

Of the personality of this "Flos operatorum" we know but little; of his birth and parentage, nothing. We may reasonably conclude from his name that the county of Norfolk may claim him as one of her many illustrious sons, and of him she may well be proud.

His could have been no common nature to secure so early and retain so long the love and regard of all around him; and we cannot but chafe at the veil which hides from us all further knowledge of the *man*. He has left us amongst the carvings of his cathedral portraits of his prior and of his bishop. Of himself, his work is his only monument. Apart from this, his history is almost a blank. The simple piety of his calling forbade the loud, vain-glorious, self-assertion with which a later age has made us but too familiar.

But Fame (uncourted) guards his memory, and his name shall outlast the noblest of his works,—the crown and glory of the Isle of Ely.

THE DECORATIVE TREATMENT OF METAL IN ARCHITECTURE.

CANTOR LECTURES, SOCIETY OF ARTS.

The third course of Cantor Lectures of the Society of Arts for the present session has just been concluded. The course consisted of three lectures on "The Decorative Treatment of Metal in Architecture," and the lecturer was Mr. G. H. Birch, A.R.I.B.A., at whose hands the very interesting subject has received able elucidation.

In his first lecture, which treated of the precious metals and bronze, Mr. Birch quoted Reichensperger's definition of architecture as an "aggregate of various beautiful arts, working principally by means of proportion," and traced the rise and progress of the subsidiary arts in architecture, especially those concerned with the decorative treatment of the precious metals in ancient architecture. He spoke at some length of the use of these metals in Egyptian, Assyrian, Babylonian, Persian, Jewish, Greek, and Roman architecture, and in buildings erected since the beginning of the Christian era. Passing on to speak of bronze, he described its nature and qualities, its use in pre-historic times, and

its employment in connexion with architecture, commencing by referring to the circumstantial account given by Herodotus of the hundred gates of brass or bronze which existed round Babylon. As to the form and fashion of these brazen gates, they were not of solid metal, but were of wood, strongly bound and clasped with bronze straps, richly ornamented with figures in relief. There are now in the vestibule to the Assyrian Gallery in the British Museum a pair of these gates, almost as fresh and as perfect as they were left by the workmen 2,750 years ago.* The use of bronze at Mycenæ, in Etruria, and in Rome, was also described in detail, and many examples cited.

Mr. Birch, in his second lecture, traced the history of bronze decoration in architecture from its zenith under the Cæsars to its decline until it became again prominent in the Lombardic school and reached its apotheosis in Italy under the Renaissance or Cinque Cento. The principal examples were described with some minuteness, and the lecturer passed on to speak of Spain and France, in which countries bronze as a material for architectural ornamentation had been more sparingly used than in Italy. In connexion with decorative bronzework in Germany, the lecturer mentioned the shrine of St. Sebald, Nuremberg, by Peter Vischer, and other examples of work done by the Vischer family. Waltham Abbey, in Essex, was referred to as affording perhaps the earliest instance of the use of copper or bronze in connexion with architecture in England. Harold's original church was said to have been adorned with plates of gilt metal; and in the deep incised spiral lines which decorate some of the pillars there are traces of their having been filled in with metal, the rivets remaining. The lecturer next proceeded to speak of ornamental ironwork, the art of the blacksmith, and of the architectural use of wrought iron in the North of Europe, prefacing his remarks on this head by a brief historical sketch of the use of iron. Among other examples described (many of which have been illustrated in the *Builder*) were works in Nuremberg, Augsburg, and other German cities, in some of the old Flemish towns, and in France, Italy, and England.

The author commenced his third lecture (delivered on Monday evening last) by observing that the art of the blacksmith appealed more to one's sympathies than many of the finer and more manipulative metallic arts, for in the blacksmith's art the individuality which invested each specimen was due to the fact that the beholder knew that that particular object was once a shapeless mass of red-hot metal, laid upon the anvil, hammered and re-hammered, and cut and turned, until shape and form were given to it and it left the anvil a thing of life and beauty, telling of patience and skill on the part of the workman, and carrying with it the genuine "ring" of the anvil and hammer. This was particularly the case with English ironwork of the seventeenth century, when wrought ironwork began to be more extensively used for domestic buildings than it had ever been used before. The Great Fire of London created a revolution in house-building. Timber and plaster structures had disappeared and made way for brick. The overhanging stories were no longer allowed. Basements had to be protected by iron railings, and the entrances to the mansions of the rich citizens, which were generally set back from the street, were decorated with iron gates and grilles. The erection of a new cathedral in the revived Classic style required that the smith's art should be represented in its fittings and railings. Externally the cathedral was, until lately, entirely surrounded by a very handsome railing of Sussex iron, made at Lamberhurst, and many of the smaller openings externally are filled with ornamental grilles of charming design and workmanship. Internally, the screens which separate the north and south aisles of the choir, the gates which formerly closed the choir-screen (now removed further eastward), the grilles in the backs of the oak stalls, and various other railings about the building, are all of them no mean specimens of the art of the blacksmith in England. All the internal ironwork at St. Paul's Cathedral is not, however, thoroughly English; although all made in this country, some of it was designed by one Tijou, a French Protestant refugee; but in Mr. Birch's opinion Tijou's work was confined to the choir enclosures. Tijou is also supposed to have worked on the handrails to the state staircases at Hampton Court Palace. Of late years we had lost a number of the finest specimens of the smith's art of the period in question. Lindsey House, Lincoln's Inn-fields (called also Ancaster House), on the west side, had some very fine and curious iron grilles placed between six tall piers of the finest brickwork, surmounted by Portland stone vases. The ironwork has gone, and so have four of the piers,—two giants only survive. Powys House, in Great Ormond-street (destroyed to make Powys-place), had a similar enclosure. Within the author's own recollection, several very fine wrought-iron gates in the City had been removed and sold as old materials. Bridewell Hospital, in New Bridge-street, Blackfriars, still possesses a superb pair of folding-gates, the finest specimens in the City. Some of the houses in Lincoln's Inn-fields and Bloomsbury-square still retain some of their old wrought-iron staircase rails. At Nos. 35 and 46, Lincoln's Inn-fields are to be seen some very fine specimens; a panel on the first-floor landing of the first-named house is one of the best specimens of ironwork of this period to be seen anywhere. At No. 5, Bloomsbury-square (corner of Hart-street) there is a good wrought-iron staircase rail; the house itself is interesting as being the town-house of the elder Disraeli. The entrance-gates to the gardens of the honourable and learned societies of Gray's Inn and the Inner Temple are very good specimens of the smith's work; and in some of the suburbs of London,—such as Hampstead, Clapham, Stoke Newington, Stratford, Bow, and Kensington, — indeed, wherever the old red-brick houses with tiled roofs and quaint dormer windows were to be seen, there would be found a great deal of ironwork of the same period. Although hitherto the lecturer had referred to London examples more particularly, the provinces were equally rich in good specimens. At both the Universities there would be found admirable specimens in some of the college gardens, notably at Clare College, Cambridge, and at Trinity College, Oxford, and in the gates to the Clarendon Press buildings in the latter city. But the crowning glory of this particular phase of metal-work was to be found in the South Kensington and Bethnal-green Museums, in the gates or screens which formerly adorned the gardens at Hampton Court Palace. There are twelve of them, and the graceful variety and charming design which characterise them is extraordinary. National emblems and attributes, such as the rose, thistle, and harp, are freely introduced, and the manner in which the freedom and beauty of the wreaths and scrolls and the foliage of the acanthus contrasts with the upright bars of the constructional lines of the gates is beyond all praise. Purists may object to natural flowers being imitated in wrought-iron, and perhaps, strictly speaking, the material has been slightly lost sight of by the talented designer of these wonderful gates; but the exuberant fancy and exquisite taste displayed in their arrangement, and the technical skill by which difficulties have been overcome, silence every objection, and one can only look in admiration and wonder at the superb result. Huntington Shaw, the blacksmith of Nottingham, may well, indeed, rank first among our blacksmiths. The City churches are rich in specimens of the smith's art, where it is used not only in fittings such as altar-rails, sword-rests, and hat-rails, but also in a more legitimate architectural manner, as was to be seen in the Church of St. Dionis Backchurch, where the organ-gallery was supported by square Corinthian pilasters whose caps and panels were very delicately worked.

Lead.—Lead, like iron, was seldom found pure, and had to be separated from its ore. The use of it dated from very remote times. In a passage in the Book of Job (xix. 24), the words "graven with an iron pen and lead in the rock for ever" show that the peculiarity of the metal in being easily molten and run in a fluid state into an engraved surface was thoroughly understood and appreciated. But even in Roman times the use of lead was not so general as one would imagine from the easily-fusible properties of the material. "As heavy as lead" was one of our most familiar proverbs. How, then, was it possible to invest a material seemingly so unpromising with any amount of life, or to infuse into it the quickening spirit of art? This was a question which might be reasonably asked nowadays, when we confined the use of the material to piping and all the horrid paraphernalia of sanitary science. In the Middle Ages, when lead was used often prosaically enough, it was also made a vehicle for conveying an art lesson, and was impressed with a native beauty intrinsically its own. Apart from its use as a medium for covering roofs,—and more especially the roofs of large ecclesiastical buildings or civic halls, where the exquisite soft tones of the lead-covered roofs served as a foil to the stonework,—lead was also ornamented, and such ornamentation was applied in strict accordance with the capabilities of the material. The ridge-line of a roof was treated so as to mitigate its harshness, and was softened off by a cresting, plain and simple at first, during the twelfth, thirteenth, and fourteenth centuries, but gradually, with the architecture itself, becoming more and more elaborate, until it culminated in some of those wondrous crestings of beaten and cast work which were produced at Blois and Rouen at the commencement of the Renaissance. Lead was also employed to cover those quaint dormer windows which in Mediæval architecture play such an important part in all large buildings. Here the lead was used in various different forms; not only were the sides and roof of the dormer covered with it as a protection, but the construction was ornamented by the use of finials or vanes made of wood or iron internally and covered with lead. These crowned the summit of the dormer, while the sloping sides of the gable were adorned with crockets, in many cases cut out of sheet lead and beaten and bossed out to the form required round a central support, to give rigidity to the whole. Many of the large cathedrals on the Continent, especially in France, possess most exquisite little spires, or, as they are called in France, "*flêches*." These rise at the intersection of the main roofs, and in some cases lead plays a most important part in their decoration. Could there be anything more lovely, or more appropriate for its position, than the exquisite *flèche* which surmounts Amiens Cathedral? Apart from the constructive skill displayed in the manner in which this is built so as not to exert any undue thrust or pressure upon the roof,—in itself a marvel of carpentry,—its exterior oaken carved work, statues, niches, pinnacles, and traceries are covered with lead, and it is one of the most beautiful works of art which the Middle Ages have bequeathed to us. Unfortunately, the upper portion has suffered considerable mutilation in some clumsy repairs executed in the past century, which repairs were requisite on account of the *flèche* having been struck by lightning and its upper part partially destroyed by fire. Owing to these circumstances the *flèche* was considerably diminished in height, but Viollet-le-Duc, in the fifth volume of his "Architectural Dictionary," p. 470, gives a restoration of its original state, from drawings preserved. It was originally profusely painted and gilt, traces of which remain. In London, we had a modern example of these lead-covered *flèches* crowning the roof of the central hall of that much-abused and severely-criticised pile of buildings, the New Law Courts; both in regard to form and the ornamental treatment of the leadwork, this *flèche* would bear comparison with many of its Mediæval prototypes. At Chalons-sur-Marne, the two western towers of the Church of Notre Dame have leaden spires, one of which, the south-western one, is singularly decorated, another metal having been pressed into the service, viz., tin. The employment of this last-named metal, and the manner in which it was applied, showed how thoroughly the men of those times understood the science (if it might be so termed) of polychromatic decoration. Gilding and painting the leadwork in patterns, although highly effective, and extensively used at that period, had been found to be not so durable as could have been wished, and the expense of reinstating was excessive. The mode of decoration with tin was therefore devised, not for the sake of covering up or concealing one material with another, but to add another beauty to the work by means of the use of a metal which would be free from oxidation, and which would form an agreeable contrast with the dull tones of the lead-work by its own intrinsic brilliancy. There were traces of this form of decoration on the lead work of several of the French buildings of the Middle Ages, but the example at Chalons-sur-Marne was the best-preserved. This spire, and the process of tinning, were described by the late Mr. W. Burges, A.R.A. (a former Cantor

* These gates, and the circumstances attending their discovery, have been described in the *Builder*. See "The Brazen Gates from Ballawat," vol. xxxvii. (1879), p. 531.

Lecturer), in some papers he wrote on lead-work in the *Builder* in 1856.* The lead which was intended to be decorated was prepared with a thick coat of lamp-black and size, and the pattern traced with a point; all that portion of the surface to be tinned was removed with a shave-hook, so as to leave it clean and bright, and after being rubbed with sweet oil the solder was applied with an iron in the ordinary way. Mr. Burges further stated that at Chalons the tinning process had been applied a century after the spire had been erected, but that the usual plan was to do the tinning in the shop before fixing the lead in position. The perfection which the French plumbers attained can be seen by studying some of those truly exquisite finials which abound in France. The fashion of casting statues in lead became very general. Many of the figures which adorn the gardens and fountains at Versailles are of lead. In London we had two, viz., the very graceful kneeling figure of a blackamoor supporting a sun-dial, in the garden of Clement's Inn; and the statue of Shakspeare which surmounts the hideous portico of Drury-lane Theatre; this statue has been painted stone-colour. No one ever better appreciated the capabilities of lead as an architectural ornament than Sir Christopher Wren. To take St. Paul's Cathedral as the first instance, how pleasing was the contrast between the carefully-considered curves of the lead-covered dome and the Portland stone of which the building was constructed; and how superior for effect was the lead surface of the exterior of the dome than would be the surface of a stone dome! Everybody knew the extraordinary effects of black and white on the exterior of the stone-work of St. Paul's,—effects due partly to the weather and partly to what was now discovered to be a species of fungoid growth, and not so much to dirt and smoke as had been supposed. How very disastrous and subversive of the present grand effect of the dome would be the appearance it would present if it had been carried out in stone, with one side of the dome "as black as your hat," and the other side almost as white as snow! Wren had evidently a predeliction for lead, for out of the thirty-one spires which he built in London alone, twenty-two were in lead, of which nineteen still remain. Among many other instances of the artistic treatment of lead, the lecturer instanced the cast-lead cisterns, very few of which now remain. The ornamentation on these was sometimes very rich; the same was to be said of some of the old rain-water pipe-heads. Enough had been said to show that the plumber's occupation could be elevated to the position of a positive art.

Zinc and its use in architecture was a subject almost unnecessary to touch upon. The material might no doubt be used advantageously abroad, but it did not seem capable of long withstanding our peculiar London atmosphere. Some few years ago it was largely used for ornamenting ridges and dormers and terminations to roofs; but the difficulty of allowing for expansion and contraction from variations of temperature was very great. Most of our modern bronze statues were, to a certain extent, alloyed with zinc, and it was to that cause that we must attribute their black and grimy appearance. The lecturer believed that the reason for using it was that it enabled the copper to become more readily fusible and to run more easily; but if it really detracted from the imperishable qualities of bronze its use was regrettable.

In conclusion, the lecturer said he had, so far as he was able in the time allotted to him for these lectures, demonstrated how the various metals had been used in connexion with architecture from the earliest known times. To adorn buildings in these days with solid plates of gold and silver would be an anomaly, besides being almost an impossibility. However, we could "overlay our buildings with fine gold," very fine gold, in the shape of ordinary gilding,—a form of ornamentation which, judiciously applied, whether in connexion with painted decoration or not, was always effective and harmonious. But it required skilful handling. For his own part he should like to see the ribs which accentuate the lead work of the dome of St. Paul's gilded, so as to carry up the eye to the golden gallery and ball and cross. One marked feature of the late Mr. Burges's scheme for the decoration of St. Paul's was the employment of bronze, gilded; and, whatever might be the opinion respecting the use of bronze in London, it could not but be hoped that justice would yet be done to a material so easily manipulated and so durable in its substance. The judicious use of iron grilles or railings, either surrounding or partly protecting large public buildings, was in itself undoubtedly a great help to the architecture, and more especially so when such enclosure or railing partook somewhat of the character of the building it protected. In London, among other examples in which the iron railings, apart from their intrinsic beauty of design, do lend themselves to enhance the architectural design, are the New Law Courts, by the late Mr. Street, and the large block of red-brick buildings at the junction of Carey and Serle-streets, known as New Court Chambers, by Mr. Waterhouse. It was, however, matter for great regret that the vast sums of money expended upon the railings and gates of the British Museum, the Houses of Parliament, Buckingham Palace, and the Embankment Gardens, had not been productive of something more artistic. The railings in front of the British Museum, from their extreme heaviness and mass, and the profusion of chocolate paint and gilding, only make the dark and forbidding pile of building behind look the more gloomy and severe. A redeeming point about them is the small defence or boundary of simple bars and standards surmounted by charming little seated lions, modelled by the late Alfred Stevens. In the new enclosure railing round Palace-yard, at the Houses of Parliament, the idea evidently was to produce a railing in keeping with the architectural surroundings, but the profusion of painting and gilding only attracted attention to a design which was both heavy and pretentious, and in which the material seemed to be completely lost sight of. As to the railing enclosing Buckingham Palace, where one would have looked for a handsome termination to the historic Mall, remembering the traditions of Hampton Court and old Buckingham House, with its metal grilles and statues, we found the embodiment of the most commonplace mediocrity. In the railings of the Embankment Gardens the result was most unfortunate. There was no possible objection to a cast-iron railing; for cast iron was as capable of artistic treatment as wrought iron, as might be seen in the castings exhibited by the Coalbrookdale Company; but on the Embankment we saw a cast-iron railing utterly unsuited for the purpose, consisting of a series of minutely-designed panels, perfectly invisible even from a very short distance off, from their very intricacy and monotony of effect. But although the lecturer, and many others with him, failed to appreciate this ornate example of brittle cast iron, there were evidently others of a very different opinion; for they seemed to be very anxious to obtain specimens of these cast panels (which they could very easily do by a judicious tap or two), for the purpose, it was to be presumed, of studying their beauties. To such an extent was this appreciation carried, indeed, that the authorities would do well, while there was yet time, to deposit in some popular museum (such as the well-known one in Baker-street) a perfect specimen of one of these panels, so that future generations might see what the pattern originally was. The idea of a railing in this position, the lecturer went on to say, is not a happy one. Standing anywhere above, either at the top of the steps at Westminster Bridge, or on the footway of the railway bridge, and looking down on the graceful sweep of the Embankment, the want of a well-defined second line of demarcation is painfully apparent. Such a line of demarcation would have been provided by a dwarf stone or granite wall, surmounted either by a stone balustrade, or by dwarf iron grilles between frequent piers or pedestals. We had instances of iron railings and grilles in London which we need not be ashamed of, and modern ones too, notably the screen dividing Holland Park from Kensington-road, designed by Mr. Thomas Jekyll, who was one of the first to put into active practice the principles which actuated the smiths of the seventeenth and eighteenth centuries. Another noteworthy example, from the designs of a living architect, was afforded by the entrance-gates to the College of Minor Canons of St. Paul's Cathedral, in Warwick-lane, Newgate-street; these gates and the grille filling the interval between the top of the arch and the panelled wooden doors of the gate-house were carried out from the designs of Mr. Ewan Christian by Mr. William Shrivell, blacksmith, Castle-street, Long Acre. Among other objects of iron, in which there was great room for improvement, the lecturer instanced our street lamp-posts, which he hoped would give way to ornamental brackets when the electric light came to be generally adopted for street illumination.

At the close of the lecture, Mr. Cobb, who occupied the chair, moved a vote of thanks to Mr. Birch for the exceedingly able and interesting manner in which he had dealt with his subject in this course of lectures. This was carried by acclamation, and the visitors proceeded to inspect the numerous specimens and drawings exhibited in illustration of the various points of the lecture.

* Vol. xiv., pp. 408, 411, 418.

BEN JONSON AT LINCOLN'S INN.

"I was last week taking a solitary walk in the garden of Lincoln's Inn, a favour that is indulged me by several of the Benchers who are my intimate friends and grown old with me in this neighbourhood."—STEELE, *Tatler*, No. 100.

ON the 7th instant we noticed the alterations which have been carried out at Lincoln's Inn Chapel, and adverted to the opening ceremony of the following day.* In its account of that service a contemporary sets forth that "it is said that Ben Jonson worked with his trowel on some of the walls [of the chapel] which now stand."† The chapel was practically begun in the 15th James I. (1617), when the Bench appointed a committee of members "to consider of materials for this chapel. . . . . The model thereof was recommended to the contrivance of Inigo Jones, who . . . . estimated the charge of the same at 2,000*l.*" The benchers' subscriptions not amounting to this sum, the balance of 1,800*l.* was raised by a graduated tax upon all members of the Society. Jonson was then forty-four years old, had produced some of his most celebrated plays and, with Inigo Jones, many of the masques in which the Court so much delighted. Neither the author of "A New View of London,"‡ Strype (Stow's Survey, 1720), Seymour (1735), Maitland (1739, and again in 1756), Noorthouck (1773), nor Pennant (3rd edition, 1793) says anything to connect Ben Jonson with the laying of any of the bricks of Lincoln's Inn. Yet he certainly did for a few months§ labour at his step-father's trade, and this after he had in his sixteenth year gone up to Cambridge, where, according to Fuller, "he was statutably admitted into St. John's College.‖ But the same causes which in a later age summarily shortened his great namesake's career at Pembroke, Oxford, compelled Jonson to leave college; he returned home to serve as apprentice to his mother's second husband. Speaking of his necessitous means at this time Fuller says in his "Worthies," vol. ii., "Let them not blush that have, but those that have not, a lawful calling. He helped in the building of the new structure of Lincoln's Inn,¶ where having a trowel in his hand he had a book in his pocket." Aubrey, writing to the same effect, goes on to say that a knight or bencher walking through and hearing him repeating some Greek names out of Homer, discoursing with him and finding him to have a wit extraordinary, gave him some exhibition to maintain him at Trinity. Fuller, too, affirms,—"Some gentlemen pitying that his parts should be buried under the rubbish of so mean a calling, did by their bounty manumise him freely to follow his own ingenious inclinations." But his biographer Gifford declares neither friend nor admirer followed him to his humble employment, and that as, in his own words, "he could not endure the occupation of a bricklayer," he made one desperate effort to escape from it altogether, not by returning to Cambridge, but by withdrawing to the Continent and volunteering into the army then engaged in Flanders.

As appears by an inscription beneath his arms at the east end of the former roof, the new chapel was consecrated by George Mountain, Bishop of London, on the Feast of the Ascension, 1623, Dr. Donne, a past member, and then Dean of St. Paul's, preaching the dedicatory sermon, from the text of St.

* See p. 458, *ante*.

† The *Standard*, 9th April current.

‡ Printed for John Nicholson at the King's Arms in Little Britain, and Robert Knaplock, at the Bishop's Head in St. Paul's Churchyard. 1708.

§ Malone, in his "Shakspeare," vol. i, p. 624, says for five years, 1588 to 1593,—clearly a mis-statement.

‖ No note of his matriculation is to be found. The names are omitted from the Register, June, 1589—June, 1602. If, when at Westminster, Jonson was on the foundation, and proceeded regularly to Cambridge, he would enter at Trinity. He was born in the early part of the year 1574.

¶ The wall (since destroyed) built 35th Elizabeth (1592) along New-street, now Chancery-lane.

John's Gospel, x. 22, 23. It is not a good example of a style for which its architect had little taste. But the windows,—the work of one Hall, a glass-painter in Fetter-lane,*—are justly admired, being equal in point of colour, according to Winston, in his work on Glass Painting, to the richest decorated glass of the best period. Laud had reason to express surprise that so much abuse should be raised against his own at Lambeth, whilst these figures of Apostles and Saints escaped censure. Yet he would not further speak of this lest he should "thereby set some furious spirit in work to destroy those harmless goodly windows to the just dislike of that worthy society." The open crypt beneath, since railed off to form a burial-ground for the benchers, was formerly a customary place of resort. Pepys (27th of June, 1663) describes his visit to the new garden, "and so to walk under the chapel by agreement."

At this period Lincoln's Inn consisted of Old-square, whose earlier portions were lately pulled down, to be followed ere long by the remainder, with its quaint exterior chimneys, presenting some interesting examples of Jacobean brickwork. The old hall, remarkable for its four bays, but disfigured by later alterations, was erected on the site of a previous one about the year 1502, chiefly through the beneficence of John Nethersale, a member of the Society. Another member, Sir Thomas Lovell, treasurer to King Henry VII., contributed largely to the erection of the Gatehouse tower, finally completed in 9th Henry VIII., at a cost of 153*l.* 10s. 8d.† The timber came from Henley-on-Thames; the bricks and tiles are of clay, dug out of the Cottrell Garden or Coneygarth, a plot of ground adjoining Lincoln's Inn-fields. A sum of 16*l.* 7s. 5d. was paid for forty-three cartloads of freestone, the wrought work of the chimneys, and the arms over the entrance. The last-named include within garters the royal escutcheon placed between that of Henry Lacy, the great Earl of Lincoln (or, a lion azure, or purpure), and the chevrons quartered of the Lovells.‡ The existing gates were ordered to be set up 25th Henry VIII.; and a few years later Chancellor's-lane, that had long borne an evil name as "a foul and dirty way," was levelled and paved. Traces of its former vaulting remain beneath the ceiling of the gateway. In the reign of Queen Mary were constructed the kitchen and the walk under the trees in the Coneygarth, and in the early years of her sister's reign the gates referred to above were put up, with a brick wall and gateway on the western side along Ficquett's Fields, and sundry additions made to the hall and kitchen. In King James I.'s reign were built the chambers which lately adjoined the chapel and those which form the south-eastern and south-western angles of Old Square. (The corresponding chambers at the north-eastern angle have been replaced by what is the last work of the late Sir George Gilbert Scott.) The garden at the same time was enclosed, and though one now looks in vain for the shaded walks of which Ben Jonson speaks, one may there find any summer's evening the perhaps no less gratifying spectacle of troops of children from the purlieus of the neighbouring St. Clement's, Gray's, and Staple Inns, happy little urchins to whom the benchers, herein setting a good example to the trustees of the Fields, do not deny admittance. Ficquett's (or Templar's) Field is at this date occupied by part of the Royal Courts of Justice, Carey-street (Jackanapes-lane), New-square (Little Lincoln's Inn-field), and Serle-street. Until the Dissolution it belonged to the Priory of St. John of Jerusalem. Passing from Sir John Birkenhead, author of the "Mercurius Anglicus," to Henry Serle, part of the field took its shape of New-square, which, however, forms no portion of Lincoln's Inn proper, at the end of the seventeenth century. Serle's arms and those of Lacy are carved on the Carey-street gateway. Stone-buildings is the uncompleted design of Sir Robert Taylor, the working drawings being made by Leech, his clerk, who, entering of Lincoln's Inn, became Master of the Rolls. The modern hall and library, the work of Philip Hardwick, were opened by the Queen, 30th October, 1845.

* See Bagford, Harl. MS., No. 5,900, fol. 51.

† The louvre dates from 6th Edward VI. In that year the charge is thus accounted for:—carpenter's work and timber, xlvs.; the smith's for the vane, viiis.; the gilding thereof, xis.; the plumber's work, viii*l.* xs.; and the glazier's, xxxis. The arms in lead of Lacy, with Quincy's and the Earl of Chester's, on one side, are removed.

‡ See the inscription beneath:—"Insignia hæc refecta decorata Johanne Hawles Armig, Solicitatore Generali thesaurario. 1695."

Lincoln's Inn originally arose over the ruins of the earlier monastery of the Black Friars and the town house built by Ralph Nevil, bishop of Chichester, chancellor, in the place and garden (at the southern end of the lane) granted to him by King Henry III. This house, the "noble palace" so called by Matthew Paris, was standing in Queen Elizabeth's reign, and Bishop's-court and Chichester-rents yet commemorate its position and name. Arriving in England with their prior, Gilbert de Fraxineto, in the year 1221, the Black or Preaching Friars under Archbishop Langton's patronage were granted a piece of land "without the wall of the city by Holbourn, near unto the Old Temple." Hence they removed fifty years later to their settlement by Mount Fitchet and Baynard's Castle on the left bank of the Fleet.*

In the time of Richard de Wiht, "St. Richard," Nevil's successor, the bishop's inn and the deserted monastery became appropriated to students of the law, though in what manner is not clearly ascertained. Tradition runs that Henry Lacy, Earl of Lincoln, having a grant by patent from King Edward I. of "the old friar house *juxta* Holborn, being a person well affected to the study of the laws," assigned its professors this residence, but we are not told whether by gift or purchase. Subsequent grants exist of leases to the students and benchers by bishops of Chichester of portions of the estate appertaining to the see when finally by a deed, dated 12th November, 22nd Elizabeth, the whole inheritance was conveyed for 520*l.* to one Richard Kingsmill and his brother benchers.†

Once singularly distinguished by various sumptuary enactments for regulating the costume, toilet, board, and expenses of the fellows and students, renowned for its moots and disputations, its masques and dancings, its "grand Christmassings" and "ancient and solemn revels,"‡ Lincoln's Inn claims more eminent men than any other kindred house. First on the roll is Sir John Fortescue, Lord Chief Justice *temp.* Henry VI., and author of the learned discourse "De Laudibus Legum Angliæ," composed in France when he was attending his royal pupil Edward, eldest son of that sovereign. On the 4th of February, 2nd Henry VII., was admitted Sir Arthur Plantagenet (Viscount Lisle), a natural son of Edward IV. Sir Thomas Lovell, made a knight-banneret on the field at Stoke (1487), was "double reader" in 21st Edward IV., Chancellor of the Exchequer for life to King Henry VII., and executor of his will. Having attained to the dignities of Knight of the Garter, President of the Council, and Constable of the Tower, he was buried in the chapel of the Holywell nunnery, which he had refounded at Shoreditch. To these should be added the names of such men as Sir Thomas More (migrating from New Inn), Egerton (Lord Ellesmere), Shaftesbury, Mansfield, Spelman and Lambard (antiquaries), Prynne, Denham, Selden ("the great dictator of learning to the English nation"), Oliver Cromwell, Sir James Ley (whom King Charles I. created Earl of Marlborough), William Pitt, Erskine, Brougham, Campbell, W. Canning, Sugden, and Sir Matthew Hale. The last-named bequeathed the greater part of the valuable manuscripts preserved in the library. On the third story of No. 1, Old-square, Lord Mansfield, then Mr. Murray, had chambers §; at No. 24, on the ground-floor to the left, Thurloe, Cromwell's secretary, had chambers from 1645 to 1659. In William III.'s reign the Thurloe papers were accidentally discovered in the false ceiling. In this room Cromwell, unfolding his treacherous scheme for securing the persons of the king and his brothers, was overheard by Samuel Morland, Thurloe's under-secretary, who feigned to be asleep. Cromwell, who had not at first seen him, was on the point of despatching Morland with his dagger, but assured by Thurloe that Morland had sat up for the two past nights together, satisfied himself by passing his weapon several times over Morland's face. Morland, alive to all that passed, contrived to forewarn the princes.* Warburton, Usher, Donne, Tillotson, and Heber, were preachers at the chapel; there, on the 3rd of November, 1668, Sir William Dugdale gave his daughter in marriage to Ashmole. On the former chapel staircase stood the tablet which the benchers erected to the memory of Spencer Perceval, who, at the time of his assassination by Bellingham, resided in Ancaster House, now No. 59, Lincoln's Inn-fields.

* The bit of old wall recently demolished in St. Martin's-court, and Little Bridge-street, Ludgate-hill, composed of materials of the London Wall at that spot, was the survivor of the wall of their convent here.

† W. Herbert's "Antiquities of the Inns of Court and Chancery." 1804.

‡ The dancing was at one time obligatory. See the curious order of the 6th February, 7th James I., punishing the junior barristers by putting them out of commons for not dancing before the judges on the Candlemas-day preceding, and threatening that for the next negligence they should be fined or disbarred.

§ Lord Campbell's "Chief Justices," ii., 326.

DISCOVERY OF AN ANCIENT CELTIC CROSS.

AN interesting archæological discovery has lately been made in the parish of St. Teuth, near Camelford, in the county of Cornwall, of a relic believed to be of Celtic Christianity in the south-western corner of England. This consists of a massive granite monolithic cross of the Greek type, measuring no less than 15 ft. in extreme height. The head or superimposed cross of this monument is, like some other ancient crosses, not accurately circular, but slightly elliptical in form, the diameter along the horizontal arms being 23 in. and that along the vertical shaft of the cross 26 in. The arms project for about 1 in., and gradually widen towards their extremities in the same manner, but not in so marked a degree as the limbs of the cross so well known under the designation of the Maltese cross. These arms are raised, and united by intervening segments of a circle not quite truly circular. The spaces between the segments and the arms are pierced through in the usual manner, the piercing following the lines of the segments and arms. The two sides of this ancient cross resemble each other in design, but the one which was in all probability looked upon as the front face appears to have been in some degree more carefully carved and finished by the mason than the other. The long shaft, which supports the ornamental cross already described, measures 21 in. by 15 in. at the base, and 13½ in. by 11½ in. beneath the fillet immediately below the cross. The angular corners of the shaft are rounded off, and each of the four sides or faces is enriched with deeply incised lines or channels that form borders, within which are enclosed spaces replenished with sculptured ornamentation. The exact devices or subjects of these sculptures have not, however, at present been determined, on account of the deteriorated condition of the face of the stone from weathering and improper treatment.

The greater portion of this shaft, a mass of about 8 ft. 6 in. in length, split longitudinally, sadly hacked and defaced, was discovered to have formed the coping of the wall at the west entrance of the churchyard for a period of upwards of forty years. Two smaller fragments, each measuring about 1 ft. in length, had been sunk into the ground to form blocks for the pivots of the churchyard gates; and a larger piece, comprising about 1 ft. 6 in. of the rest of the shaft, and a portion of the lower limb of the cross itself, was also let into the ground and drilled with a socket-hole for the reception of the bolt of the gates. The upper part of the cross, containing the two lateral arms and the upper limb, had been worked square, and utilised as a quoin for one of the side walls. The chips and small pieces struck off in this shameless act of Vandalism are, it is feared, irretrievably lost, but the same care which has resulted in the recovery of so large a portion of the monument will be exercised in the search for these fragments. The tenon of the shaft, and the greater part of the mortised plinth or base into which it was originally fixed, are also missing, but it is believed that they are not very far away from the site which has yielded the recovered pieces. This plinth appears to have been of an oval or elliptical form, for a small portion of it with one angle of the mortise was found on the original site of the cross, not far from a pond or pool lately called the "Dimmickom" pond, now occupied by a blacksmith's shop, to the south of the churchyard wall, and close by the east drive to the vicarage. We are inclined, from the above description of this monolithic cross, to attribute it to a date ranging somewhere between the seventh and the ninth century, but the determination of the details of the sculptures on the faces, which

* See Burnet's "History," and the letter of 14th August, 1656, in the Thurloe State Papers.

will not be very difficult when the stone is reared up again in its original position, will materially assist conjecture as to age. It has been suggested by some that this fine but seriously-mutilated work, of undoubtedly early Christian art, in Cornwall, was erected towards the middle of the fourth century, subsequently to the persecution by Diocletian, when, writes Gildas, "the Christians were brought back to a state of ease, the victorious cross was displayed, the churches were rebuilt," &c. If this monolith be a "cross of victory," may we not accept the testimony of Gildas as literal rather than figurative? If so, after occupying its pristine site for nearly a thousand years, this stone cross was most probably overthrown by those who took a prominent part in the destruction of similar ecclesiastical objects in the stormy days of the seventeenth century. Even within the memory of an aged parishioner it was used as a bridge across the outlet of the pond already mentioned. It was removed about the year 1835, by the Rev. Joseph Fayrer, then vicar, into the churchyard. Mr. Fayrer's intention to restore and repair it was, however, frustrated by reason of the loss of the tenon and the fragmentary condition of the base, for the cost of repairing the base or procuring a new granite base then proved an insurmountable obstacle. In the year 1841, during the time of the Rev. Thos. Amory as vicar, the relic received the treatment described above. About the same time a handsome Norman capital from the church was converted into a pig-trough, to which practical purpose it still subserves. Other contemporary acts of a similar character could be mentioned. The restoration, however, has been undertaken and already commenced by the Rev. Thos. Worthington, temporarily in charge of the parish during the absence, on account of illness, of the hard-working and enterprising vicar, the Rev. William Rowe. It is likely to prove a somewhat expensive undertaking, but we trust that Mr. Worthington, to whom the credit of the in-gathering and repair of the fragments is due, will not be left to bear the burthen alone. It is a work deserving of the co-operation of all who reverence the Celtic vestiges of Christianity in their country.

WORK FOR SCOTLAND TO DO.

IN the speech Mr. John Bright recently made to the students of Glasgow University, as Lord Rector, after glancing over the whole of our colonial possessions and relations, in his incisive manner, he informed them that 78 persons out of every 100 in Scotland lived in a dwelling consisting of only one room or of two. Notwithstanding the general progress made in many departments of social life, the general growth of wealth, and the special industry and thrift of the Scottish people, only twenty-two persons out of every hundred enjoyed the comfort and decency of a home with more than two rooms in it. In the face of this fact it is evident bonnie Scotland has a great task to accomplish.

Moreover, in these days of increasing comfort in railway travelling, we may take it for granted Scotland will gradually come to be regarded as the summer residence of the wealthy, even as it has been considered for some long time the happy hunting-grounds of the "upper ten." As in old times the prosperous citizen took up his abode at a day's journey's length into the country to recruit his health, or enjoy recreation, so, by-and-by, we may conclude, a day's journey will take him into the "dark, and true, and tender North." Whereas Weymouth and Tunbridge, Brighton and Hastings, Ramsgate and Margate, and other places, have each been within the convenient distance in question, as modes of conveyance have gradually improved, so may Scotland come to be equally accessible to the John Gilpins and Dick Whittingtons of the future, with their great followings. Thus, there will be a call for thousands of houses in Scotland that her numerous visitors may be suitably provided for, over and above the present need of better house accommodation for her own sons and daughters. And now we have a word of timely counsel. Let Scottish architects and builders keep up their nationality in these new opportunities. Let them preserve Scottish architectural mannerisms. When the London citizen arrives in the North, let him find something new, and bracing, and commendable in the architecture and not feeble imitations of second and third-rate London houses. No style of house could be so suitable to the climate and to the traditions of the soil as the strong and sturdy edifices built by former generations, of which there are sufficient examples to yield and suggest a countless variety of outline and detail, all in admirable keeping.

Before Sir Walter Scott's delightful fictions caused the brown moors, the green hills, the glens and mountains, and the little grey towns to be visited by autumnal visitors in thousands, and before Dr. Johnson's celebrated tour in the Hebrides, detailing his astonishment at all he saw and heard, and all he experienced in the way of discomfort, as when he stepped out of bed into pools of mud upon the floor of a country inn, raised a storm of indignation, there were other writers who have given us curious pictures of the simplicity and hardships of Scottish life in some of its phases. Mr. Kenneth Macaulay, writing in 1764, tells us what the village of St. Kilda was like at that date. It consisted of two rows of flat-roofed houses, facing each other, with a tolerable causeway between them. He says, "The walls of these habitations are made of a rough, gritty kind of stones, huddled up together in haste, without either lime or mortar, from 8 ft. to 9 ft. high. In the heart of the walls are the beds, which are overlaid with flags, and large enough to contain three persons. In the side of every bed is an opening, by way of door, which is much too narrow and low to answer that purpose. All their dwelling-houses are divided into two apartments by partition-walls. In the division next the door, which is much the largest, they have their cattle stalled during the whole winter season, the other serves for kitchen, hall, and bedroom. . . . . After having burnt a considerable quantity of dried turf, they spread the ashes with the nicest care over the floor of that apartment in which they eat and sleep." This process is repeated till the cottagers are ready to sow their barley, and the houses are so full of this compost that their internal height is reduced to about 4 ft. or 5 ft. Doubtless, there has been some improvement since this distant day, and the customs of the inhabitants of St. Kilda were not general; but, as Mr. Bright has forcibly stated, it is an overwhelming fact that only twenty-two persons out of 100 are comfortably housed in Scotland at the present time. We look to the setting in of a great tide of sanitary reform in this matter.

THE LATEST PHASE OF THE THIRLMERE SCHEME.

IT is frequently unfortunate that the legal knowledge of the community is increased at the expense of parties who can but little afford it. The recent arbitration between the Corporation of Manchester and the Countess Ossilinski fortunately could not be said to be of this character. The litigation, for litigation it was, arose out of the well-known scheme for supplying Manchester with water from Thirlmere. The form which it took was, in the first place, that of an arbitration as to the value of certain land which belongs to the Countess on the borders of Thirlmere, and its final, or at any rate, most recent, phase was an attempt by the Corporation of Manchester to upset the award of the arbitrator. With the general facts and figures of this arbitration we have nothing to do, but there is one part of it, and that which was recently discussed before a Divisional Court of the Queen's Bench Division, which in these days seems to be decidedly instructive from an arbitrator's point of view. It seems to be admitted that the arbitrator took into consideration that the value of the land was enhanced by the capabilities of the ground for the storage or collection of water for the supply of any town which might be accessible, though the Court did not find that it was certain that the arbitrator did take this fact into his consideration, yet it appears that the Court practically considered that he did. But the important point to be borne in mind is that this fact of the value of the land for the purposes of a reservoir might, the Court considered, be properly taken into account as an element of value. It must be confessed, however, that if this element be carefully considered, it is really very doubtful whether it should have been taken into consideration; and for this reason: a particular piece of land may be suitable for a reservoir, but unless some other persons than those who require it at the moment wish to make use of it as a reservoir, then this purpose for which it may be suitable does not add to the value. Thus, a piece of land may be suitable for building, but it may be years and years before it can be utilised for this purpose. It would be ridiculous to take its value as building land, in such circumstances, into consideration. In the same way, it may fairly be considered that, had not Thirlmere been fixed on as a reservoir by the city of Manchester, its use for the purpose would have been so remote and so unlikely that its applicability for such a purpose could not be properly taken into consideration. We do not mean to say that the award in this case could be upset, because it was open to assumption that the arbitrator had rejected this circumstance. But what we desire to point out is that arbitrators should not even consider too remote possibilities. It would, to take another example, be absurd if one railway desired a piece of land for their undertaking, and it was peculiarly suitable for the line, and there was no other scheme dreamed of, or on foot, for an arbitrator to take this fact into his consideration. To consider these remote possibilities is really to add a value to the land which is taken which, under ordinary circumstances, it would not have. Unless the Corporation of Manchester had determined, or were about to determine, to take Thirlmere as a reservoir, would any ordinary purchaser have taken its capability for a reservoir for a great town into consideration? Certainly none would have done so. Therefore it is obvious that when a large city or a great commercial undertaking requires land for its particular and special purposes, these special purposes, unless they form circumstances which any ordinary purchaser would consider, should not enter into the mind of an arbitrator as an element of value. The only effect of admitting such facts as these is to make persons or corporations with compulsory powers pay an absurdly high price for the land which they require. Let every real element of value be considered, and the usual ten per cent. addition for compulsory sale be allowed, but do not let purely extraordinary elements, which would not arise except for the fact that the undertaking requires it, be considered. So great are the values which are involved in this Thirlmere arbitration that it is probable more may yet be heard of it in the Law Courts. Meanwhile, however, it is well that arbitrators should not suppose that this arbitration gives them the right to take into consideration all sorts of special and remote circumstances which an ordinary purchaser would not consider.

MR. CHARLES FOWLER.

MR. CHARLES FOWLER, F.R.I.B.A., having resigned the office of Hon. Sec. of the District Surveyor's Association, occasion was taken on Friday last, the 13th instant, to present him with a testimonial on behalf of the members as a mark of their regard, as well as a slight acknowledgment of the great value of the services he had rendered them in the discharge of the duties of Hon. Sec. of the Association for a period of twenty-one years. Mr. Jennings, from the chair, made the presentation; Mr. I'Anson, Professor Kerr, and Mr. Woodthorpe concurred in bearing testimony to the personal esteem in which Mr. Charles Fowler had ever been held by the members, to their appreciation of the excellence of his professional character, and the consistent manner in which he had stamped the work of the association with his own high standard of what was right and fitting in their duties and responsibilities.

Mr. Fowler reminded the members that he had succeeded one who had created the work of the Association, and had placed it on a very high footing (the late Robert Hesketh.) If he had been able to maintain that work it was mainly due to the kind assistance he had received from the members themselves. They had a highly technical and difficult Act to administer, and the principal object he had endeavoured to keep steadily in view before them was uniformity of practice, in the belief that the public interest is best served by a strict and uniform interpretation of the rules of the Act.

The testimonial consisted of a handsome antique silver loving-cup, and some smaller table ornaments, also of silver.

We desire to add personally a warm expression of our high esteem of the character of Mr. Charles Fowler.

Whiteman & Bass, *Photo-Litho* 236 High Holborn.

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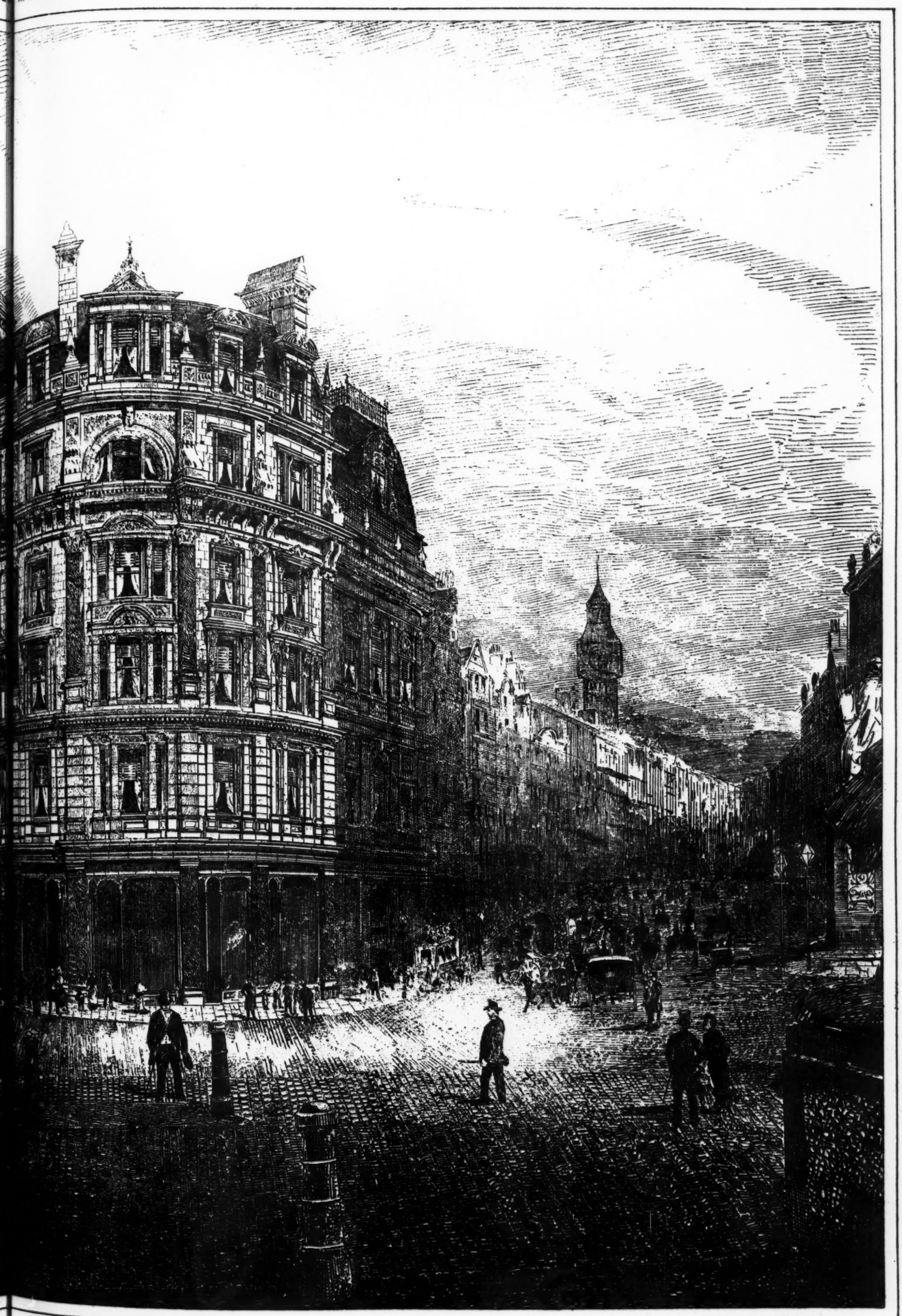

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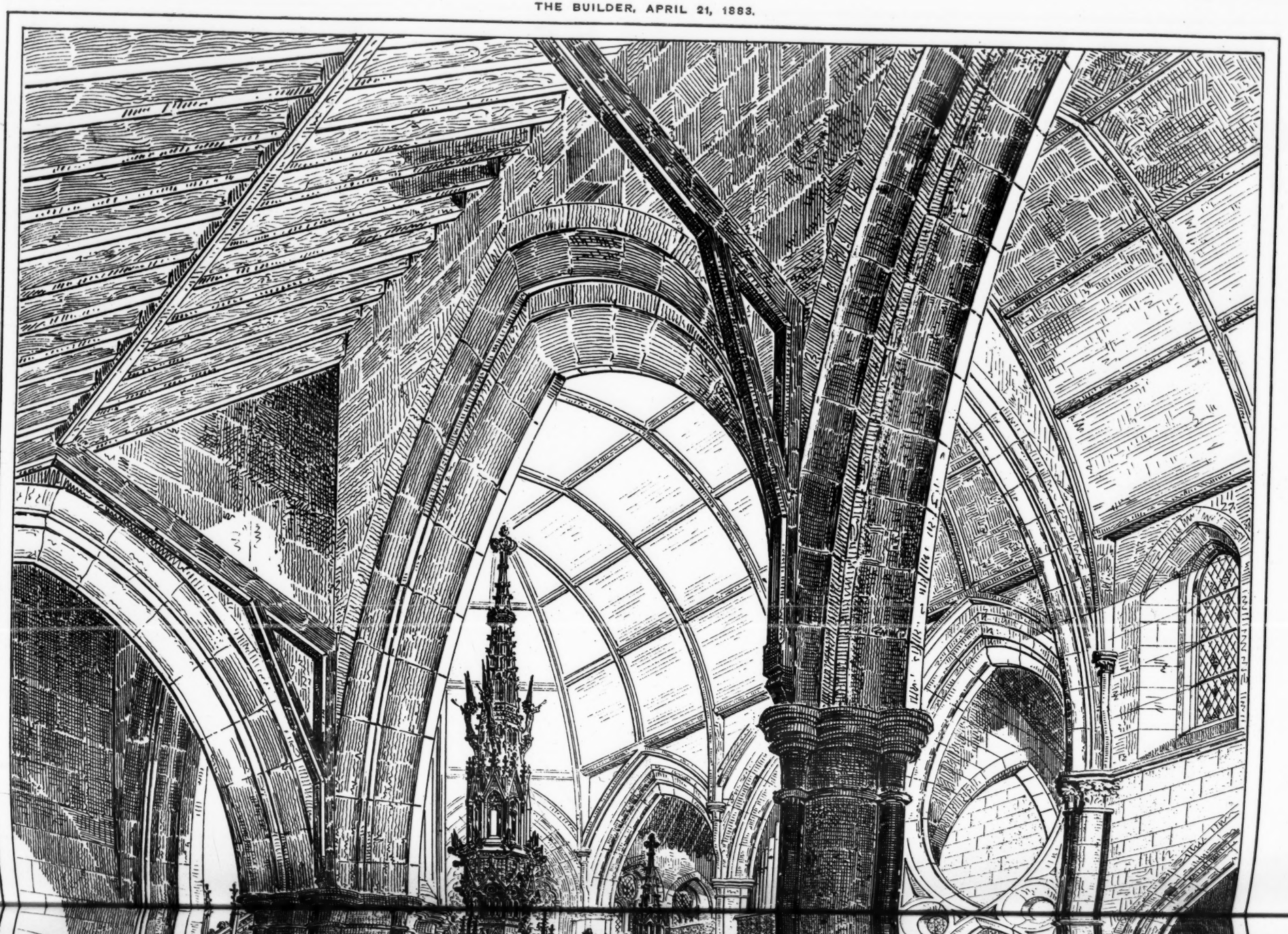

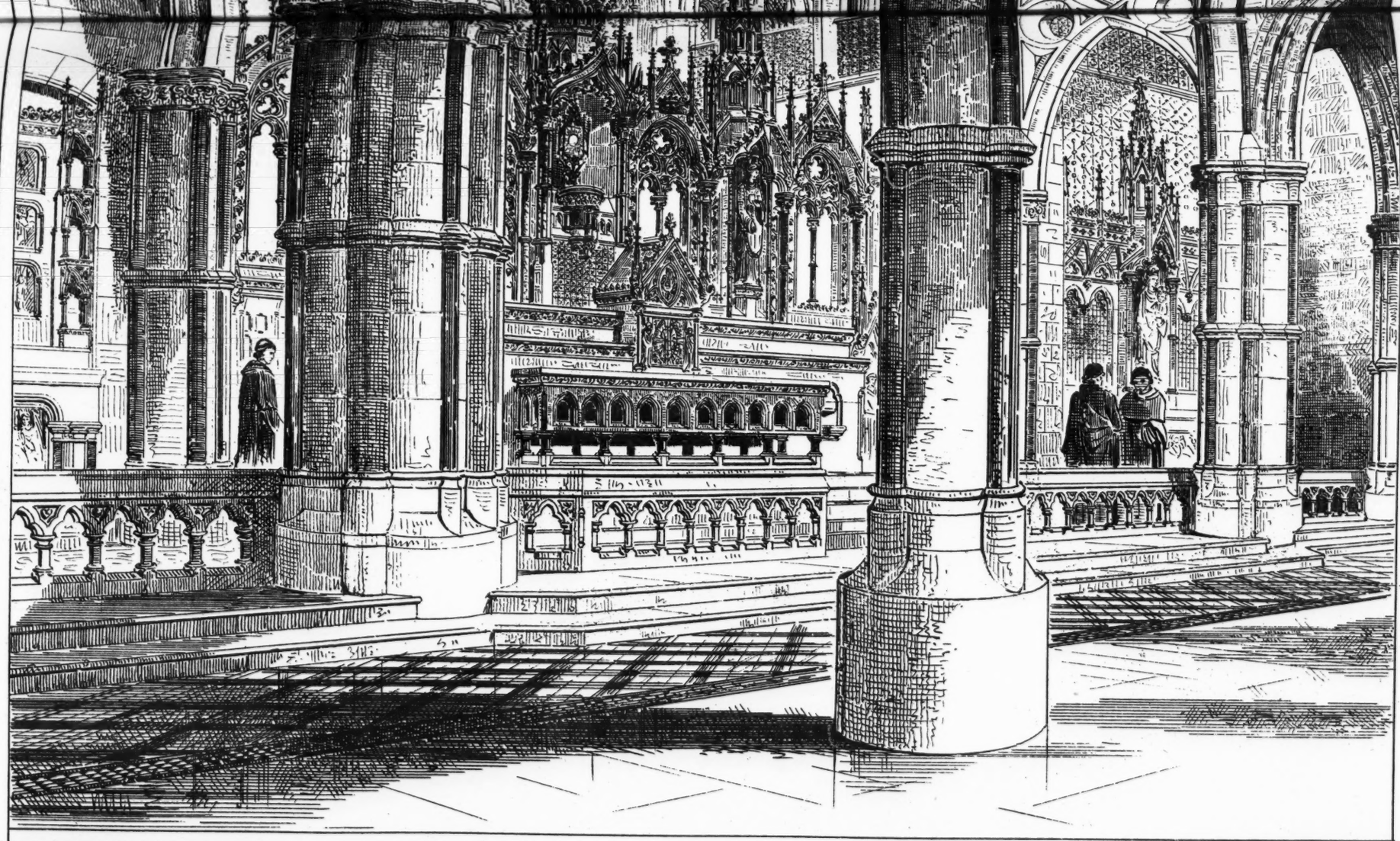

Church of the Sacred Hearts of Jesu & Mary West Brompton

Messrs J.A. Hansom & Son Architects

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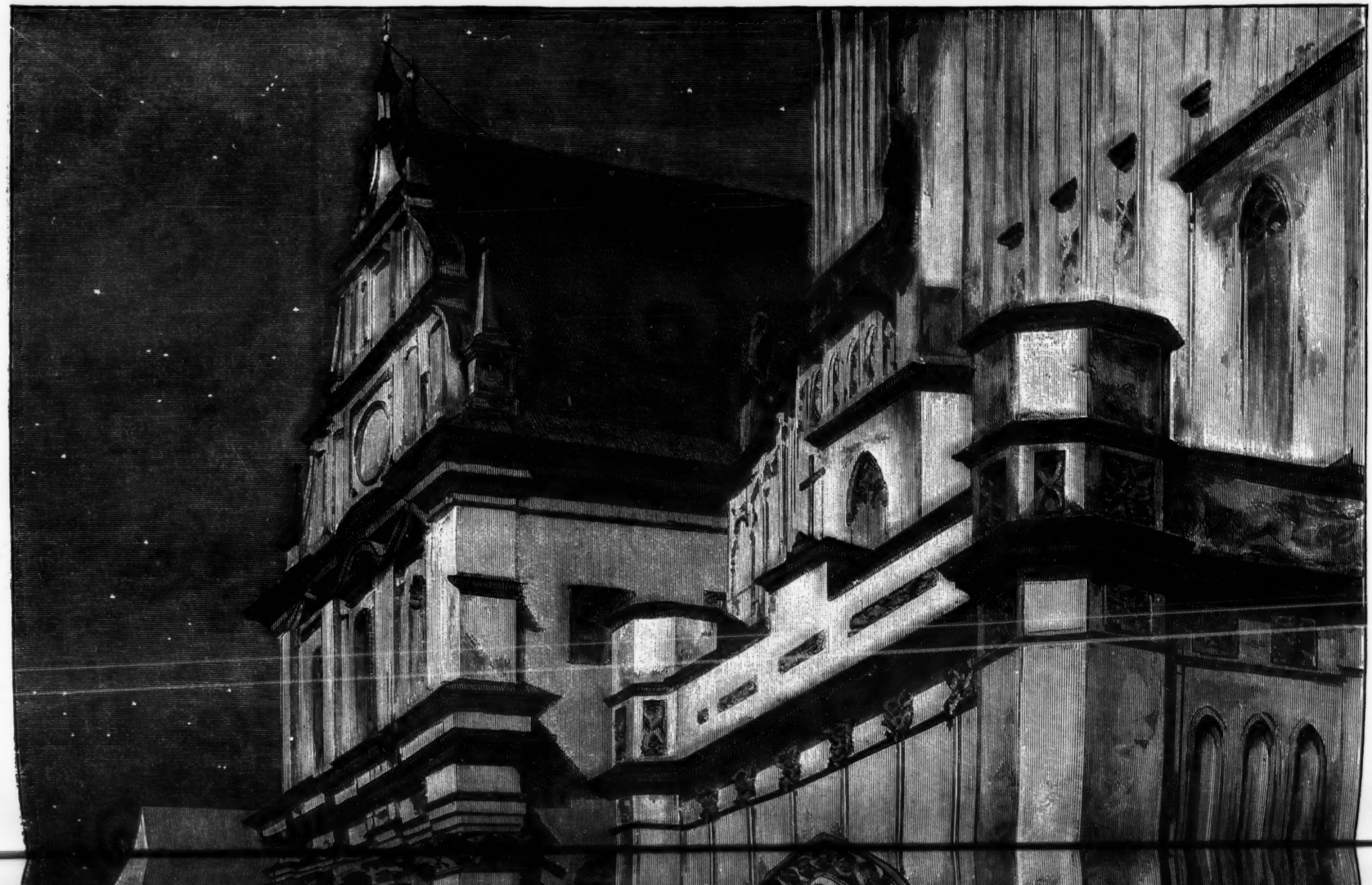

CHURCH OF ST. JOHN, WARSAW, AT TIME OF PRAYERS.

CHURCH OF ST. JOHN, WARSAW.

Although Warsaw, as viewed from Praga, one of its four suburbs, and lying on the right bank of the Vistula, creates an imposing effect, a closer acquaintance with the city dispels much of the first favourable impression. Warsaw is a town of old date, but was a place of insignificance until the annexation of Lithuania by Poland; after which, the territory of the Republic being extended to the west, Cracow was no longer sufficiently central to be the capital. In 1566, the Diet was transferred from the old to the new capital of Poland. In the war with Sweden, in the middle of the seventeenth century, Warsaw was occupied by the invaders. When Charles XII. advanced in 1703 to Warsaw, it surrendered to him without opposition. In 1793, the Russian garrison that occupied it were expelled by the Poles, on receiving intelligence of the success of Kosciusko near Cracow. That gallant leader, when obliged to change the scene of contest, retreated on Warsaw, and defended it with success against the Prussians, during the summer of 1794, obliging them eventually to raise the siege. A different fate awaited Warsaw on the arrival of Suwarrow and the Russians. Praga being taken by assault, and delivered to pillage, the capital submitted without opposition. On the final partition of Poland, in 1795, this part of the country fell to the share of Prussia, and Warsaw had no other rank than that of capital of a province, until the end of 1806, when the overthrow of Prussia led to the formation of an independent state, called the duchy of Warsaw. Of this state, it continued the capital, until the evacuation of Poland by the French in January, 1813. Since 1815, it has, in a manner, retained its character of a capital, being the residence of a viceroy representing the Emperor of Russia.

The town is divided into an old and new quarter, exclusive of its four suburbs. It covers a great extent of ground, the length of the town and suburbs being between three and four miles, its breadth between two and three miles; but large spaces are occupied by gardens. A rampart and fosse surround the city, and the Russians have constructed a large citadel for its defence. The population is now nearly 200,000 souls. The old town, consisting of one main street, with smaller streets joining it on each side, is miserably built, with the exception of a few public edifices. In recent years, Warsaw has grown into a beautiful city, with fine buildings, and wide streets and squares. Many of the principal streets have been paved, and wooden buildings are gradually disappearing. All the squares are of large dimensions, one of the best being the Sigismund-square, in the centre of which a column of Polish marble, adorned with a bronze statue of Sigismund III., was erected in 1643. In the Cracow suburb stands the equestrian statue of Prince Joseph Poniatowski, by Thorwaldsen. The new town extends along the banks of the Vistula to the extent of nearly three miles. It contains several churches, public buildings and barracks, a town-hall, and the Jardin de Saxe. The castle is a large quadrangle, with halls where the Polish Diet and Senate once held their sittings.

We said above that the general effect of Warsaw is very imposing, and a nearer examination of its numerous churches and fine buildings, which there is plenty of room to see to advantage, as well as of the palaces of the nobility, confirms the first favourable impressions of its architectural features. A closer acquaintance, however, says a writer, will dispel much of the pleasure with which a stranger will be disposed to regard the external appearance of the streets and buildings. On passing the arched gateway which pierces many a noble-looking front, he will be surprised to see the mean and irregular erections which compose the rest of the quadrangle, and his sight will not be the only sense which will receive an unpleasant shock. Although admirably situated for drainage, there being hardly a street in the city in which there is not a good natural fall, Warsaw has up to the present time had no sewers. But all this will shortly be changed, for an extensive system of sewerage, with an outfall into the Vistula, is in course of construction.

The suburbs are less badly built than the old town, which has, however, some good buildings, amongst which is the old town-hall, a collegiate church formerly belonging to the Jesuits, and the cathedral of St. John, of which we give a view in this week's *Builder*. That church was founded in 1260 by one of the Masovian dukes, and is joined to the royal castle by corridors. It contains a standard taken by King Sobieski from the Turks before Vienna (1683), and an excellent altar-piece by Palma Nowa. Another church, that of the Holy Cross, has a handsome façade, and was built by Joseph Ballotti in 1682-96. The Church of the Capucines contains a splendid monument of marble, erected in honour of King John III. (Sobieski) by his countrymen. The Russian cathedral is also a handsome edifice.

THE NATIONAL LIBERAL CLUB, CHARING CROSS.

On the motion of the Marquis of Hartington, at a meeting held on November 17th, 1882, it was resolved, "That a club be established in London for furthering the interests of the Liberal cause, to be called the National Liberal Club, at which Liberals throughout the kingdom may obtain every club comfort and advantage, and where they may meet in friendly intercourse to exchange information and views." All sections of the Liberal party were represented at this gathering. Indefatigable labours had been carried on by a small committee for some months, particularly in the direction of ascertaining whether a club on the basis sug-suggested was needed. When the list of original members was closed, in the first week of January, 1883, over 2,500 members had been registered. In that membership, between 500 and 600 towns and other places in the United Kingdom were represented. More than 400 of the members were officials connected with Liberal organisations in the provinces. There are now, we are informed, considerably more than 3,000 members. Liberal clubs and associations, too, are becoming affiliated with the club.

A temporary club-house of a convenient character has been obtained at the corner of Northumberland-avenue and Charing-cross, looking into Trafalgar-square. Five floors are placed at the service of the members, viz.: First floor,—reading and writing rooms (three), library, reception-room for strangers; second floor,—grill-room and four dining-rooms; third floor,—billiard-rooms, smoking-rooms, card-room; fourth floor,—country members' bedrooms; fifth floor,—kitchens, store-rooms, &c. Several rooms on the ground-floor and basement are also included in the premises secured. The building, of which we give a view, was designed by Messrs. F. & H. Francis, architects, London, and has since been internally arranged for the club by Mr. F. W. Waller, architect, of Gloucester and London. It is expected that the club-house will be ready for the accommodation of members during May next, when the institution will be inaugurated by a large dinner at the Royal Aquarium.

The Right Hon. W. E. Gladstone, M.P., is the president of the club.

THE ROMAN CATHOLIC CHURCH, WEST BROMPTON.

The Servite Fathers of St. Mary's Priory, in the Fulham-road, are to be congratulated on another acquisition to their church in the form of a permanent high altar and also a pulpit. The work is now in course of erection by Mr. George Porter, sculptor, of 402, King's-road, Chelsea, who supplied all the work except the statues, which are by Mr. Boulton, of Cheltenham, and the tabernacle by Mr. George Hardman, of 126, Fulham-road. The stone for the super-altars (two) and reredos is Caen, and for the altar itself alabaster is used, all the shafts being of marble. The altar and pulpit will cost together about 1,000*l*. The centre pinnacle or flèche, that over the expositorium, is 35 ft. in height above the predella and 38 ft. 6 in. above the nave floor. The expositorium is approached from each side by steps between the altar and reredos. The Friars' choir being in the rear of the altar, access is provided thereto on each side of the sanctuary, and to enable the full length of the church to be seen and not shut off the choir as formerly by the high super-altars, the reredos is to a large extent composed of rich open tracery work. The large niches contain figures of the Sacred Heart of Jesus and the Sorrowful Heart of Mary, this being the dedication of the church; and the small ones St. Philip Benizi and St. Juliana Falconieri, two illustrious saints of the Servite order. This St. Philip, although not actually the founder, is looked on as the great light of the order, and is described as its "illustrious promoter" (*Propagator insignis*) by Papal bull. The altar front is arranged in panels, on the lines of the Roman antependium Gothicised, to allow of an actual antependium, showing through the panels to suit the five ecclesiastical colours, or of the antependium being omitted without loss. The foliage is treated in the Early English style.

The pulpit base is a large clustered column, with elaborately-carved caps mingling their foliage, thereby increasing to the size of the pulpit proper, which is arranged as a circular arcade, the backing being filled in, but pierced in the upper parts. The spandrels of the arches are filled in with mezzo-relievo carving, amongst which are represented the emblems of the Evangelists. The capping is richly carved in alabaster.

Both altar and pulpit are from the designs of Mr. Joseph Stanislaus Hansom, F.R.I.B.A., of South Kensington, who, together with his father, the late Mr. Joseph Aloysius Hansom, designed the church, monastery, and lady altar.

The work is to be completed by the 1st of May, when the ceremony of its benediction will be performed, which is expected to be largely attended. It is only about fifteen years since the Servite Fathers, or Servants of Mary, landed in this country, renting a small cottage, and building a very small temporary chapel. They are now the largest religious community of men in London, and have had to find an outlet in their new monastery at Bognor, opened last summer. They are able to say that during their sojourn in this country they have never allowed a year to pass without the erection of some important work. The altar and pulpit are the work of 1883, and the Prior is now contemplating building an enlarged lady-chapel as the next work.

WREN'S CITY CHURCHES.

This was the subject of a paper by Mr. A. H. Mackmurdo, architect, read by the author before the members of the College for Men and Women, Queen's-square, Bloomsbury, on Saturday evening last. The City churches of Wren were, he observed, the children of the seventeenth century, and they brought straight down to us the impress of not merely individual character, great as that was, but the impress of the age's character. Having reviewed the salient characteristics of the seventeenth century, and traced the progress of the Renaissance movement northwards, the lecturer referred to the works of Inigo Jones, who, though he freed architecture from the vagaries of untutored taste, could do little more, being obliged to leave the rest to Wren, his follower, and thus becoming to Wren what Bacon was to Newton, and what Girtin was to Turner.

The lecturer went on to say,—The Great Fire of 1666 came as a purifying power to cleanse a city so fouled by the black pestilence that life was scarcely safe within its walls. The timber huts in which the London poor had huddled and hovelled for centuries were fit but for the fuel of flames. Yet it happened that in the cleansing fire the old cathedral and eighty-seven parochial churches fell a prey to the unsparing flames. Wren had just returned from Paris, whither he had been bound on a Continental tour. Bernini had fired his enthusiasm for Renaissance architecture by showing him his drawings of St. Peter's, Rome, just completed, and of the Louvre, then building. He was summoned to the king, and after a few days' interval this Surveyor-General had completed a plan for the rebuilding of the entire city, a plan which, had it been adopted, would have saved us the alterations we are now obliged to make at so heavy a cost. But no one was far-sighted enough to see the value of his scheme, and the old lines of the narrow and meandering streets were in almost all cases adhered to in the rebuilding. In the reconstruction of the cathedral and City churches, however, he was, with little exception, not interfered with, and fortunate was it for us that it was so. The population had been, by the plague and civil war, considerably thinned, and there needed not to be rebuilt all of the churches destroyed. Wren, therefore, was at liberty to choose the most advantageous sites, and erected fifty-one churches in place of the eighty-odd burned down. The characteristic of the age was a

consciousness of all-pervading law; not a thing was done but by a conscious principle. The form of a poem was planned out according to the strictest laws of form, of metrical harmony, and ideal proportion; the unity in form, the exact relations of line to line, and stanza to stanza, were strictly kept throughout. The spirit of the age exacted the same care from Wren in the planning of his cathedral and the design of her daughter churches. And this strict unity of composition and severity of form observed in the cathedral classes it as chief among the epic poems of architecture, while the playful and individual character of the surrounding steeples stamps them as pure lyric compositions. Yet these lyrics in stone are but portions of one great composition centred in the cathedral. As forming together a single group, these steeples, therefore, must be thought of; each member was placed and planned with designed relation to other members around it, and in strict relationship to the whole. Each member of this cluster, like a member of the human body, has a peculiar office to fulfil,—has its structure determined by its function, and affected by its position. This was a principle newly discerned, and for the first time applied: had it been known, it probably never would have been applied, for it was alien to the spirit in which the Goth worked. The Goth built instinctively, and not by conscious reasoning; he professed obeyance to no rule but the rule of thumb, hence the want of unity in his design, the doubtful stability of his construction. The Goth thought of each structure as being in or by itself complete, just as by his religion he looked upon individuals as separate units, each a soul alone responsible for his acts in this world and his salvation in the next. Further, had this principle been known, no single man had ever an opportunity of applying it so fully. Never was presented an opportunity of designing so great and important a group of buildings, a group of buildings extending over the entire area of the greatest city in the world. Such an opportunity was given to Phidias or Palladio never; such has never been offered any man since Wren's day, and happily was it that the good fortune which now gave the opportunity gave also the man to use it well. This characteristic of unity in design is, then, the first and most important characteristic of these City churches, a characteristic of which no other city in the world can boast, a characteristic which gives to London an interest above that enjoyed by any Continental town; yet an interest and a beauty too little valued, because unrecognised but by so few. Few are there who have ever seen this group of churches. This one has often seen this church, and that one another; but each has looked at the church he knows as one is in the habit of looking at a Gothic building, an edifice having no reference to any other. But these churches are not to be seen in this disconnected way. Go and look, I advise you, at the entire group on your first opportunity. From the tower of St. Saviour's, Southwark, the entire group is to be seen. I know no more magnificent sight, in any towns of France, Germany, or Italy. The most favoured view in either Cairo or Constantinople is not to be compared with this view of London, her domed cathedral lifting itself aloft, boldly centred among her square massive mansions and huge blocks of offices, its dome as soft in outline and tender in gradated light as any summer cloud; and not alone does she stand, but surrounded by her daughter churches, that minister each to the others by counterpoint of form, playing change of outline and variety of tone,—indeed, a most lovely sight. And this united group Wren was so careful in planning that no two similar outlines neighbour one another; seldom, even, has he placed together two steeples in equal strength of tone, but beautifully intermingled the varying strength of stone, lead, and brick. Thus the value that each is to its neighbour in its offer of complementary form, — at once harmonising and intensifying intended effects,—is only seen when these steeples are viewed in some such connexion. When, in walking up Ludgate-hill, we see the spire of St. Martin's brought clear against the dome of the cathedral, we discern a new majesty in St. Paul's, a new inimitable elegance in St. Martin's. We see what scale and distance is given to the building behind by the dark leaden tone of the steeple in front; we see how its slender form and subtle curves give such bigness and boldness to the cathedral dome that it seems now to cover an acre or more of ground, and to vie in buoyant grandeur with the domed and pillared clouds above. And in return for this good service done, the mother-church lends the little spire a delicacy and a gentle loveliness surpassing that she would of herself possess. Again, when walking up the old approach to St. Paul's, namely, Watling-street, we see Wren has so placed the steeple of St. Augustine's that its sharp terminal may prick the sky immediately in front of where the cathedral dome spans the ground; and we see here, as on the other side, what value each renders the other, how beautiful features are intensified and singular effects find their required complements. Both St. Paul's and St. Augustine's have, however, suffered a loss in the alteration this spire has undergone, a heavy and severe-lined spire now taking the place of one exquisitely proportioned and of sinuous outline, as may be seen in an old engraving. If we doubt the effect these forms have one upon another, let us, by means of a drawing, change the position of either of these buildings, and place, say the steeple of St. Benet's in the place of St. Martin's, and St. Mary-le-Bow in place of St. Augustine's; we shall then at once see how much St. Paul's loses, how much beauty is marred by ill-designed contrasts, and how impossible it is to alter the designed relations of this group. When thus we have once seen this family group of churches, not only do we henceforth think of them as having exceptional historic importance, but as having exceptional value on account of this artistic unity and completeness. We henceforth look upon all these churches as so intimately connected that St. Paul's bereft of its surrounding steeples would be to us as a body bereft of its limbs; likewise these churches without their metropolitan cathedral would be as so many disconnected members having no head nor trunk to unite them. This unity of conception, this law of relationship, and conscious proportioning of part to part, is peculiar to Classic art, the art that has been wedded to science,—the art of cultured, disciplined, and broadly-trained minds; and these are qualities found in the finest examples of every art, in poetry, painting, music, and sculpture. But Gothic or Romantic, art is devoid of these characteristics; indeed, they are irreconcilable with the spontaneity, spirited energy, and surprise which are the essentials of Gothic art, whether that art be architecture, sculpture, painting, or song. To see how important is this element of relationship, when next you go westwards stand in the garden before Palace-yard, and, looking upon the Gothic minster, the Church of St. Margaret, and Houses of Parliament, ask yourself whether the architect, when erecting these latter buildings, for a moment thought of their design as requiring any relation to the then existing buildings next them. Certainly no trace is there of any subordination of individual taste to this general principle of co-relationship; there is, so to speak, no social sympathy evident between these buildings, and one grieves to think how different might have been their effect had this law been observed and a sympathy insured,—the abbey asked to lend its aid to Barry's pile, the Parliament buildings assisting to intensify the spirited character of the old Gothic minster. But it is a part of and a piece with Romantic art, and as an example of this in poetry compare Langland's vision of Piers Plowman with an ode by Dryden, and you will find this characteristic of unity,—proportion and relation of part to part, line to line, and stanza to stanza, as evident and conscious in the one as it is conspicuous by its absence in the other. And, I beg you observe, herein lies the difference between Classic and Gothic art, in this recognition or non-recognition of general law or conscious principle; and not, as is generally supposed, in the pointed arch and buttress that the one possesses, and in the beam and round arch that the other has. For you may have pointed arches and buttresses and yet have pure Classic architecture, as in St. Clement Danes; or you may have round arches and horizontal beams while maintaining the pure Gothic character. This first characteristic of unity in grouping belongs, we said, to Wren's churches as a whole. It is the family characteristic; but it appears no less markedly in the design of each separate building. Of this and other characteristics which belong to the churches as individuals or members of the family we must now speak. Time will not allow my referring to the churches, so must ask you to allow me to confine my remarks to their steeples. As you must now know, Wren was an eminently practical man, as all far-sighted men are, and he at once saw the first requirements of a City steeple. Built in a narrow street, the lower part of it never to be seen except from a position immediately in front and under one side of it,—therefore never seen, except in steep perspective and part by part, your head requiring to be thrown further back to enable you to see each succeeding stage,—and built against buildings of irregular and coarse projection,—a web of windows and cornices, a network of vertical and horizontal lines,—it must, to look well and dignified under these conditions, be kept flat and full of repose, not a feature added that is not imperative, its simple lines leading the eye upwards, its doorway and belfry windows of exceeding simplicity, its projections of subtle delicacy, its surface unbroken as a maiden's sleep. No ornaments, either, must be added where their effects can never be fully appreciated; no related proportions of space to space, or of opening to opening, when these are are impossible to be seen; no projections given which steep perspective must make coarse. These are the first requirements, and these Wren rigidly observes. The calm, quiet grandeur and unbroken repose of his towers is very marked, and their most beautiful feature. As you walk down Fleet-street, and approach St. Martin's Church on Ludgate-hill, you feel this sense of beauty growing upon you; as you walk down Cheapside, and approach St. Mary-le-Bow, you feel its beauty, because so harshly broken by the projecting clock. Look at this tower from 100 yards or so down the street, and in your imagination remove this protruding clock, and what grandeur of surface is here, the sheer unbroken fall of its front like that of some precipitous Alp! He will break this even surface on no account. Obliged to build a balcony from which the sovereign may view the City pageants, he has given it the slightest projection, thrusting it back as far as he dare. Again, the door pediments, which any other man would have projected from the front, Wren has sunk back beneath a circular hood. Thus, where proper to the position, this repose of surface is strictly kept. But it is otherwise where the buildings are so placed that the architect can calculate upon the view of their lower stories never being broken, and can thus ensure for them a distant view. When, too, they stand more or less isolated from other buildings, Wren introduces beauty of relations and boldness of light and shade. For when a tower can be seen from a distance sufficient to take in at a single glance the whole of its height, the relative proportions of its parts can be fully appreciated. When, too, recesses can be seen from some distance veiled in the soft shade of smokened air, they are made a thousand times more lovely than when seen near at hand with sharp shadows marked. Again, the columned portico and foliated arch is only seen clothed in its own peculiar charm of airy drapery, and skirting of soft cloud from a somewhat distant point. In cavern shade, beside a narrow street, where all its changing mystery and breadth of gradated space can never be seen, it shames the architect and sorrows the beholder of it, for it is a beautiful feature misplaced, and labour thrown clean away. . . . Thus far at present for the lower part of Wren's steeples; our next consideration must be their treatment above. What, in the first place, are the requirements? In any city,—the City of London certainly,—the buildings, taken as a whole, are of about the same height; there is, say at 50 ft., a level stretch of roof, presenting everywhere a somewhat monotonous horizon. Any building lifting itself above this line at once attracts the attention, as we see it dark against the waning light, or bright as it catches the faint glister of sunlight withheld from buildings below. That portion, then, of a building which can command such advantages, that part of it which, while it attracts the attention, is seen under such happy conditions, should call forth the architect's greatest care and ingenuity to do justice to the occasion. He must make it exceedingly interesting in outline, because that outline is so clearly seen against the sky. He must make it of most beautiful proportion, since the proportions are seen, distance allowing the tower to be viewed as a whole. Wren fulfilled these requirements, and he is the only man I know in England who has fulfilled them. Let us see how he has done this. First as to the interest of outline. The least interesting outline for a roof is, as you all I hope are beginning to feel, that formed of two

straight lines sloped so as to lean one against the other at the top. We are all only too familiar with this form, a form not objectionable when forming a part of a severe piece of Gothic architecture of pure Gothic times, and excusable when used by those whose severity of life and simplicity of thought required it; but unpardonable when repeated by builders who are not Gothic, and have inherited a refinement unknown to the Goths; unpardonable in these days from an artistic point of view, but quite natural when we know how associations connected with religious feeling override and control all other influences. This simplest of roof-outlines, then, Wren uses as a painter uses his points of black: they are a foil to his colour and give a pearly quality to his grays. Here and there, as in St. Swithin's and St. Margaret Pattens, Wren gives us this simple spire as a foil to the richer outlines, and by contrast to give delicacy to chaster forms. He takes care, however, not to bring any of these hard forms near St. Paul's dome, or their too great harshness would then mar its soft effect. Again, where he does use the Gothic form he covers it with lead so that it may come dark in tone against the sky, and this he does to avoid the appearance of weakness, which, if light, this form always has,—a difficulty sometimes overcome by the Goths through giving an entasis of slight curvation to the spire about its centre, a curvature sufficient to counteract the apparent concavity of two perfectly straight and converging lines. When, however, we leave this simplest form of outline, we have before us an unlimited number of forms, every conceivable combination of ever-varying curve and arrangement of rectilinear line; there is no limit to the interest and variety we may thus give to a steeple top, the imagination need never repeat itself, never flag for want of invention, every motion of the pencil suggesting a dozen new forms and combinations of forms. A fertile imagination such as Wren's would have here a splendid opportunity of showing its plenitude and power, and the opportunity has not been lost. Without breaking the bounds of architectural propriety and dignity of form, Wren has given us in his fifty-three churches as many varieties of outline. Yet nowhere has he allowed his fancy to be fitful, never allowed mere picturesqueness to enchant him, nor the vagaries of an idle hour to mislead him. The result of calm choice of form and of severely-disciplined imagination in composition shows itself in each one of these steeples,—compositions so marvellously rich and subtle that time forbids my dwelling on the qualities of more than two or three.

The lecturer proceeded to describe the spires of St. Vedast's, Foster-lane, and St. Martin's, Ludgate-hill, and then went on to speak as follows:—

The mouldings of a building are those parts which require of the architect his greatest skill. Every building must be considered as an arrangement in light and shade of which the mouldings,—that is, the cornice, strings, and various projections,—are the telling points of light or telling points of shadow. Such, indeed, is their importance that you may test the power of any architect by the way he deals with his mouldings and observes in them the first principles of composition. The first principle to be observed in the design of light and shade, whether in painting, sculpture, or architecture is this: the lights are to be kept broad and unbroken; the shadows filled with varied detail. Hence any detail put in the broad lights must be of the tenderest, while bold carving and quick contours must relieve the shadows with a variety of reflected shade. This principle, observed in all fine sculpture and painting, has been much ignored by architects, to the detriment of architectural effect. It was never departed from by the Greeks; but since the Parthenon was built, this principle has never been observed by any architect as it was by Wren. You will find it everywhere rigidly observed by him. He never places carving on a projection, but underneath one, or within a recess, as the Greeks recessed their sculptures in the pediments, or shaded them by the peristyle. Figures he either places dark against the sky, or recessed within a niche, if on the face of a building; while a frieze under a bold cornice he relieves in its shadow by projecting brackets or carving. To obey the same principle he always gives his columns a background of shadow, very slight projecting pilasters being used on the face of the building; for a column is a moulding, and must be treated as such, while a pilaster is but an advanced portion of the surface,—a projecting face. As an example of these relative effects, compare the upper and lower tiers of the drum of St. Paul's, or the portico with the side walls. To return to the tower of St. Martin's, you will observe what small mouldings Wren uses in the shadows, what broad faces of slight projection he uses in the light. This, then, is the first principle regulating the design of each separate order of mouldings, but there is another very important principle which regulates the design of any entire group of mouldings used in a building, and it is that of their relationship. The various mouldings of a building must be so related to one another that a growing or decreasing richness must characterise them as they recede from the eye; that is, the primary mouldings must project the more as they ascend, while the secondary mouldings may project the more as they descend. It is thus in St. Martin's tower. . . . .

Before speaking of the influence Wren has upon us to-day, we must refer to the influence he had upon his pupils. It was no new thing to find a man parodied by his followers. It seems to be the lot of great men that their weaknesses shall be caught up, held before the public, and multiplied by their pupils. It was so with Michelangelo and Wren. It is so to-day with John Ruskin and Norman Shaw. Wren's pupils saw only novelty in their master's work, as in our day the disciples of Norman Shaw see only picturesqueness in his architecture. Hence such monstrosities by the pupils of Wren as St. John's Church Horselydown and St. Luke's, Old-street-road. Hence, again, the myriad suburban villas of timber and stucco by the imitators of Norman Shaw. Wren's influence upon us to-day, upon you and me as we walk day by day round and about his works, should be very great. But there are many associations which prevent the influence of art working freely upon us. The Church has been hitherto the chief patron of art, the especial patron of architecture. And it so happened that the days of the Church's widest influence were days when the Gothic spirit was dominant, the mind of the people as uncultured as it was unrefined,—hence the art, like the life of those days, was Gothic. It is not wonderful, then, that the rude art which was thus accidentally bound up with a particular set of associations, should, in an age of culture, be preferred to more refined forms. For not until we have disassociated Classic art from Paganism, and Gothic art from Christianity,—not until we have looked at each form of art as men and as artists, and not as religious sectaries,—can we fully enjoy the strong qualities that belong to each. The Greeks could not love the mountains because they imagined them the abodes of evil spirits. There are yet some Londoners who see grim gods and goddesses peer from out of every Classic cornice. But it is not so with all of us here, I hope. We know that whatever a man does well, that *is* well. Here in these steeples all is thought out well, and carried out well. We get here no stolen art, no showy construction, no mean or hasty conception. All that is done is the result of severely-trained skill on the part of a man endowed with a rare artistic sensibility. And Wren did so much for his age and for us, because, as all great men before him, he was intensely receptive, and free as far as could be from bias. He was slave to no particular style; he took what seemed to him best from Classic, Gothic, and Moorish art, knowing that the best in art, whatever its source, must necessarily harmonise, just as in the world of fact the most accurate most agree. . . . .

These monuments of England's greatest skill in architecture,—these speaking piles that tell of England's birth into the new world that looks for law, and loves all learning,—these children of the most perfect mother-church England possesses, are this day imperilled by a threatened destruction. The Church threatens to raze to the ground these her fairest fabrics, and sell their sites for pieces of silver. She cares no longer for them: their beauty is nought to her, their history nought. They are but worth the price of their sites in the market. Londoners, and, my English friends, care you not for these monuments of your past,—care you not to claim what is yours by legitimate inheritance? Will you not stir yourselves to save these buildings, which are the glory of London architecture, the boast of her city, and the members of her cathedral? Will you not claim them as national property, and guard them as such? Will you let the Church, because supported by State patronage, destroy as she will? No; it is time all historic monuments are put under public control, as is done in France, and thus preserved to the people; for the people do yet, and will yet more, care for them. But surely to our children it will not seem strange that the age which designed the New Law Courts should have destroyed Wren's City churches. Nor that when the Griffin and the Goth ruled the roast, it fared ill with those monuments whose glory was in their refinement and in their learning.

THE COMPLETION OF THE WELLINGTON MONUMENT IN ST. PAUL'S CATHEDRAL.

Our contemporaries are usefully calling attention to the state of the Wellington Monument designed and carried out by the late Alfred Stevens, in St. Paul's Cathedral, and we may at length confidently renew the expression of our hopes that the work of completing this monument, more or less in accordance with the artist's intentions, will be shortly proceeded with. It seems to be the inevitable condition of artistic work undertaken through official channels that a penny wisdom should supervene, and mar by penury what afterwards has, if possible, to be righted at considerable additional cost. Fortunately, in the present instance, the expense is not alarming; and both the First Commissioner of Works and his able permanent secretary, Mr. Mitford, have shown their resolution not to shrink from their responsibilities, and have proved their ability to successfully cope with and counteract the mistakes of their predecessors. Whatever may have been the misunderstandings which arose between the late Alfred Stevens and his employers, it is a matter of history that his work was very much hampered and he himself greatly harassed by the unsympathetic treatment emanating from Mr. Ayrton and his subjected secretary, Mr. George Russell. Both gentlemen, in course of time, had to make way for others to whom the duty of superintending public works is more congenial, and by whom it is not regarded merely as a means of snubbing artists and architects, and thwarting the projects entrusted to them to shape.

Alfred Stevens designed his monument to be placed, according to the published conditions, under one of the archways of the nave,—in a position where the clearly-defined and simple proportions of archway and supports should effectively harmonise with the varying outline of his monumental canopy with its splendid groups, one on each side, culminating in an equestrian effigy of the Duke of Wellington. But his estimates for the work were rigorously reduced, and his resources thereby cramped and crippled, through the malign influence of official red-tape and his own want of business qualities. The conditions, which virtually gave birth to Stevens's idea and composition, were altered, not in compliance with any artistic opinion of weight, but merely out of deference to the objections of an ecclesiastical dignitary. From beneath the arch of the nave the site of the proposed monument was transferred to an ill-lighted recessed chapel in the west of the south aisle. The circumstances of this transfer were made worse by the fact that this chapel or chamber was divided from the body of the cathedral by a substantial wooden screen, carved by Grinling Gibbons. The incomplete monument erected in the rear of this screen was no sooner opened to public inspection than it was at once evident that both Alfred Stevens's and Grinling Gibbons's works were injuriously affected. It seemed that one or other must give way. Either the monument should be placed in the site originally proposed under the archway, or the wooden screen should be removed. The removal of the screen would have improved the view of the monument in its cramped position. But, then, the injustice of removing the screen was proclaimed. No equestrian effigy was permitted to be placed upon the summit of the monument, although without it the artist's work was avowedly incomplete. The low ceiling of the chamber seemed to protest against the equestrian effigy. Thus an imbroglio of cross interests was deliberately connived at and created by an extraordinary pertinacity of wilful misenterprise. Poor Stevens was, in fact, driven to his grave

by the force of officially-concocted events, and he succumbed at length to their influence. He was no man of the world to be proof against short-sighted, bureaucratic energy.

It is not a question of condoning these malfeasances. Officialism was in the palmy days of its inartistic obtuseness triumphant. Others now hold the reins, and it is to their sense of artistic decorum, apart from any sentimental regard for the victim of a former *régime*, that the public look for the completion, at least, of the Wellington Monument. It is for another phase of officialism to again rise supreme.

Mr. James Fergusson, F.R.S., stated in a letter to the *Times* that an original equestrian statue, in plaster of Paris, by Stevens, is to be found in the vaults of St. Paul's; and he has pointed out how it may experimentally be placed on the crown of the canopy to the monument. It should, of course, be fairly coloured like bronze so that the effect may be properly judged. Although against a spirit of the times, the removal of Grinling Gibbons's screen cannot now well be avoided. It could be placed upon the corresponding side of the cathedral or elsewhere, where it would still remain as part of the church furniture. It is fortunately not so designed as to lose importance or merit by removal. The screen thus removed, the monument will seem, at any rate, less than it does at present to be confined in a chamber too small for it. The whole of the lower portion will be in view; and the dignity of its proportions generally will assert themselves. But even with these easily-carried out alterations, it will always be a matter for regret that the monument does not stand upon the site for which, and in relation to the surroundings of which, it was designed in the first instance. It would obviously be asking for, and expecting, too much to press for the reconstruction and completion of the monument upon its first intended site.

The account which Mr. Shaw-Lefevre gave of the projects connected with the new buildings for the War and Admiralty Departments, in a past number of the *Nineteenth Century*, however we may have differed with him on some points, was prefaced by a temperate but none the less fully appreciative sketch of some few of the architectural monuments and buildings adorning London, which we are bound to say leaves no room to doubt that the present First Commissioner of Public Works has a sympathy with the higher aspects of his functions as the controller of public constructions. The only stumbling-block in the correction of flagrant mistake, made by predecessors, is the difficulty which it may be fancied besets him in convincing the Treasury of the necessity of the measures he may now have to propose. Sufficient interest has already been exhibited by Parliament to enable him to prove the futility of any temporary obstruction which could be raised by the inner circle of Treasury clerks. The Chancellor of the Exchequer may probably be relied upon, when the question comes before him, to give a ready acquiescence in the propriety of submitting a proposition to Parliament to authorise the grant of a thousandth part of his surplus this year for the purposes of the Wellington Monument in St. Paul's. From the Dean and Chapter no opposition can be anticipated. However much they may hesitate in proceeding with the scheme for decorating the interior of St. Paul's, it is pretty well known that they are alive to the injustice done to what is destined to become one of the glories of the cathedral, and if the power to extinguish this injustice were vested solely in them they would at once use it.

Altogether, the present circumstances are as favourable as public opinion can desire. And it is with no overweening assurance that we rely upon them to evolve a result which has long been urged for accomplishment.

Kensington Town-hall.—On the recommendation of the Special Purposes Committee of the Kensington Vestry, it was agreed at the last meeting of the Vestry that a sum not exceeding 1,500*l.* should be expended in painting and finishing the hall, ante-room, large room, staircase, corridors, committee-room, and council-chamber. In respect of recoupment, the Finance Committee reported that the total sum received for the hire of rooms in the Town-hall for the half-year ending on the 25th ult., was 1,732*l.* 6*s.* 3*d.*

THE MANCHESTER SHIP CANAL BILL.

THE Standing Orders Committee of the House of Lords, at an adjourned meeting on the 13th instant, waived the objections made against the introduction of this Bill, which will now immediately be brought before the House of Commons Committee, having been already read a second time in that House.

The objection which Mr. Frere, the examiner for Standing Orders, held to be fatal to the introduction of the measure, appears to have arisen entirely from the good faith of the promoters. The estuary of the Mersey, between Runcorn and the bar, is so full of shifting sands that a survey is practically useless, as before it can be reduced to paper the channel may have entirely altered. Such, before the execution of recent works, was also the case with the estuary of the Seine. Under these circumstances the promoters of the Manchester Canal judged that it would be the best course to deposit no definite plan for the estuary, but to rely on the arrangements which were to be made with the conservators of the river and the Board of Trade, now exercising the functions formerly belonging to the Admiralty, for the careful determination of this portion of the navigable channel. In so doing, however, the promoters were unable to satisfy the examiner under Clause 2 A of Standing Orders, who reported accordingly. The Standing Orders Committee of the House of Commons, however, when the case was brought before them, unanimously gave permission to proceed with the Bill for the portion of the works from Manchester to Runcorn, and after a delay, increased by the intervention of the Easter holidays, the House of Lords Committee, by a majority of 10 to 6, has now taken the same course.

The promoters will now have the opportunity of bringing their case before Parliament. The exhaustive evidence with which they are prepared is of a nature that, if it may be to some extent anticipated by those who during the past year have been studying the subject of economic transport, will no doubt be a surprise to the public. The intense interest that is taken in the subject by the manufacturing districts and the centres of commerce has been attested by such petitions as were never before presented in favour of any public work.

MR. TINWORTH'S EXHIBITION.

THE collection of works in terra-cotta by Mr. Tinworth, which is open in the ground-floor rooms at 9, Conduit-street, contains some very interesting and suggestive work, not, however, showing any features different from those by which the artist's productions are already familiar to visitors at the Royal Academy. There are two types of work,—alto-reliefs of tolerably large size in uncoloured clay, and small studies, also alto-reliefs (in which phase we include "round" figures placed against a background) in coloured Doulton ware. Some of these small studies, uncoloured, with figures about 2 in. or 3 in. high, were, as far as we remember, the first things Mr. Tinworth publicly exhibited at the Academy, and they then attracted favourable comment by their naïve character and spirited action, which we from the first recognised, regarding them as promising a good deal more. At the same time we must say that a very large number of these miniature figures have been produced in plain and coloured ware, and that, once the novelty of effect of this kind of spirited miniature modelling is worn off, it becomes evident that there is a great deal of repetition in it, and that figures on so small a scale may be produced in great numbers, and have their attraction, without fulfilling any of the higher demands of modelling art. The heads in these little terra-cotta figures are in many cases hardly modelled at all, they hardly can be; they are pellets of clay with two holes dug in them for eyes, and a certain expression imparted to them, which is not very difficult on that scale, and with the help of the colours and glaze of the Doulton ware process; and many of the heads are too small even for these small figures. This habit of miniature sketching in clay, rather than modelling, appears to have been what Mr. Tinworth began with, and this perhaps explains why in the larger subjects which he has lately taken up there is still a good deal of the influence of the habit of sketching in small observable. There are four or five bas-reliefs, studies from life, on the same scale as the larger works, which are delicately and carefully modelled; but in the alto-reliefs relating to the history of the Passion, of which there are several, and which are the principal works in the collection, there is a good deal of effective, but certainly somewhat coarse, modelling of the faces, which suggests the idea of miniature work enlarged, and which will not bear comparison with really high-class sculptor's work. On the other hand, the spirit and originality of conception of the historic scenes are remarkable, and we may well wish that there were more of such a spirit to be found among the somewhat tame and respectable conceptions of too large a proportion of our contemporary sculptors. There is nothing in Mr. Tinworth's conception of the scenes before the Crucifixion in the least recalling the "Bible-picture" style of regarding such subjects. They are treated as if they had happened yesterday, and had taken place among people whose lives we knew and whose ways were familiar to us. The by-play in some of the scenes, among the subordinate figures, is very dramatic and true to life; one point in the new one, the release of Barabbas, may be mentioned, where the "robber," a man of most forbidding countenance, is handed out of the door between two of the guards, who evidently enjoy the joke of turning such a rascal loose again, and seem to be jocosely congratulating him on his good luck. These and many other points may be thoroughly enjoyed, but the higher phases of feeling, in what should be the more serious and pathetic figures, we do not find so well realised, and the spirit and originality of the whole cannot blind one to the fact that a good deal of this, clever as it is, is rather rough work in comparison with the claims apparently made for it. Not to say this would be unfair to others who maintain a higher standard of technique, and we cannot help thinking that an attempt has been made to push public interest in the exhibition a little beyond the point which, without extraneous help, it would have naturally attained.

EDINBURGH BUILDING NOTES.

ALTHOUGH house property continues to be a drug in the market, and has fallen one-fourth in value from what it would have brought about three years ago, yet, in the suburbs, villas and tenements continue to be erected. This may arise from the circumstance that builders have taken ground upon which they were bound, within a given period, to erect the specified description of dwellings, and that they are encouraged to speculate by the fall in price both of labour and material.

Of public buildings in progress we find that the new Lyceum Theatre is being pushed on vigorously. The materials used are common brick, to be encased in cement, a mode of construction necessitated by the requirements of the case and the amount of the funds at command. This, among other reasons, may have been the reason why Mr. Rowand Anderson, who is a purist as regards truthfulness of construction, may have declined to continue to act as architect for the theatre. Mr. Anderson's Conservative Club has now been roofed in with red tiles,—the first instance of the kind in the new town,—and carvers are engaged in putting the finishing touches to the elevation.

The new United Presbyterian Church at Viewforth is approaching completion, and the spire is already a conspicuous object, and, from its elevated position, will, when completed, form a marked feature in the skyline to the south-west of the city. The Chalmers Territorial Church at West Point is ready for roofing-in, and the tower is built to the point at which the spire commences. This church possesses a marked individuality, and is in good keeping with this ancient locality. The spire will not be so conspicuous as that at Viewforth, but will be seen to advantage from the Castle esplanade. St. Paul's Church, Carrubber's Close, has been completed, so far as at present estimated for, the nave not having been extended to its full length. The nave is in one span, with a high-pitched open-timbered roof, and is lighted by plain single lancets. The chancel is of two bays, of the same height as the nave, from which it is separated by the chancel arch, upon which there is erected a turret fitted for three bells. Under the chancel, and extending partially into the nave, there is a hall which, owing to the slope of the ground, is lofty and well

lighted. The building is simple and unpretentious, but from its height, and the effective treatment of the three deeply-moulded lancets which light the chancel towards Jeffrey-street, it forms a decided acquisition to this locality, which is conspicuous to visitors on their arrival at the Waverley Station.

The Governors of Heriot's Hospital propose to devote the sum of 12,000*l.* from the trust funds of that institution towards the extension of the School of Arts, and forming it into a Technical College. In order to carry out this scheme it will be necessary to purchase the Phrenological Museum, which is situated immediately to the west of the School of Arts, and to acquire the vacant ground which forms the westernmost site on the line of Chambers-street.

There is a hitch regarding the completion of the Museum of Science and Art, and although an instalment of 5,000*l.* was voted for the purpose last year, nothing has been yet done. It is expected, however, that the matter will be arranged satisfactorily, and operations begun in due course. A motion has been made for an addition to the Trades Maiden Hospital at Rill Bank, which would afford accommodation for 350 pupils. Mr. H. J. Blanc has prepared plans for the proposed addition.

Baillie Cranston's proposal for the formation of a new thoroughfare through the site of the old Infirmary does not seem to be warmly supported, or to meet with anything like general approval. It is contended that the formation of a viaduct would involve much expense, much more than any prospective advantage would justify, and it has been urged that if an open place were formed in front of the University, it would meet all the requirements of the case. The matter is still, however, under consideration, and it is not likely that the present energetic Lord Provost will allow the opportunity to slip of adding to the amenity of the city if a favourable solution can be arrived at.

His lordship has displayed remarkable energy in promoting the completion of the new Medical Schools. The sum required for this purpose is about 100,000*l.*, and towards that amount upwards of 30*l.* has been subscribed within a short time. Considerable alterations are to be made upon the interior of the old University buildings, which are to be carried out under the supervision of Mr. Robert Morham, Architect and City Superintendent. A sum of money was, some years ago, bequeathed for the erection of the dome designed by Adams for this building, but there are no signs of its being proceeded with.

The Parcels-post comes into operation in July next, and in connexion therewith arrangements are in progress at the different Scottish post offices for providing the necessary accommodation for this new branch of the service. In large towns where the buildings are the property of the Crown the requisite accommodation will, of course, be provided by the Crown, but as regards the offices in smaller towns where the post-office is carried on in the private properties of the local post-masters, the matter will be attended to by the district surveyors. In Edinburgh plans have been sanctioned for the construction of a considerable addition to the Post-office to the south of the present building. This addition is to be carried on pillars from the railway level up to the street floor, and will be connected with the Post-office by means of a gangway run through one of the existing windows. The parcels will be raised from or lowered to the railway platform by means of a hydraulic lift, which will also be available for the ordinary mails. The public posting-office for parcels is being formed out of a large room at present used for storage, and the entrance will be by the present west door on the North Bridge. We are informed that this addition to the Post-office buildings will not affect the elevation as seen from the south. It is to be hoped that this is the case, and that, in the exigency of the moment, a structure may not be raised which in the future will prove an eyesore.

At a meeting recently held, it was resolved,—

"That the meeting, recognising the propriety of a memorial to the late Dr. William Robertson, of New Greyfriars, resolve that the most suitable form for such a memorial is the erection of new mission buildings in the Grassmarket, to take the place of the existing Working Men's Church.

The expense of suitable buildings having been ascertained to be about 3,000*l.*, exclusive of the site already provided, this meeting resolved to issue an appeal for subscriptions to all interested, with the view of raising this sum."

Dr. Robertson was distinguished for his efforts in the formation of Industrial Schools and Mission Churches for the poor.

THE "WAITING GAME" WITH RESPECT TO MURAL PAINTING.

SIR,—The public are indebted,—immensely indebted,—to Mr. Cavendish Bentinck's letter in the *Builder* of last week, which reveals, and so concisely expresses, the high-minded policy of the Legislature with reference to mural painting as the "Waiting Game." From that letter we learn that the Legislature will wait till an artist leaps, fully armed, fully endowed, from the abysm of Time, upon whom, without the slightest fear of committing itself, it may spend a few hundreds of pounds in safety. Yet, strange to say, with a glaring inconsistency, it, at the same time, annually throws away thousands upon thousands of "good money after bad," in subsidising art-school upon art-school in the vain endeavour to make its ideal artist by a means that was never thought of, much less adopted, in the great art times.

To what end are the public to be dinned with lectures upon the history of art? Does the history of art teach them that Greece and Italy played a "waiting game" for artistic genius in the sense in which Mr. Bentinck reveals that England does? No; they employed the best artists they had, knowing full well, by common sense, that State encouragemant and progressive experience would bring them better. Thus it is that we see in the British Museum the monumental remains of the imperfect, crude, art of the archaic periods, in juxtaposition with the crowning works of Phidias. Thus it is, too, that we see preserved in Italy the imperfect efforts of the earlier masters, from Cimabüé to Giotto, co-existing with the greater works of Raffaelle and Michelangelo. The legislators of Greece and of Italy understood the law of progressive development, knew the right means of promoting progress, and never begrudged their gold for the purpose. They did not play a mean and contemptible "waiting game."

With regard to the contention of oil *versus* fresco, &c., we have only to say that, if a painter is fit to paint an oil picture for a mural decoration, he has also the power to paint a fresco. The simple question of an artist's fitness for such an undertaking depends upon whether he understands the principles of the "grand style" of design or does not. The merits of oil as a method of mural decoration were disposed of by the Royal Commission of the Fine Arts in the following words,—words which had immediate reference to the proper method to be used in the decoration of the Palace at Westminster:—

"The rich and varied effects which characterise oil-painting are ill applicable to a severe style of architecture. The brightness of tints, powerful relief, the finish of details are resources easily abused, especially when the artist has long been accustomed to them. Such means require, on the contrary, to be subdued and simplified, so as not to transgress the limits of a well-understood style of decoration. To these objections it may be added that oil-painting applied to walls has no principle of durability or solidity, especially when employed upon large surfaces." "But, even if we could succeed in rendering oil-paintings on walls durable, it would be impossible to give them those qualities fitted for architectonic decoration which specially belong to fresco, and which caused that method to be preferred by all the great masters of the Italian schools." And again: "The tendency of large surfaces of canvas to bulge, and thus to impair both the apparent solidity of the architecture and the effect of the painting, is a sufficiently obvious reason for its abandonment." "The absurdity of painting in oil upon walls into the composition of which lime has entered, is so evident that it can scarcely be attempted again," &c.

It may be quite true that oil-painting was extensively used in Venice for mural decoration, but this was an exception to the general practice in Italy. There may have been several reasons for this departure, but the chief was the fact that the practice of oil-painting made the *descensus Averni* of art easier. Venetian mural painting was not decorative art in the highest sense. With all its wondrous facility and charms of colour, it was lower in the scale of intellectual effort than the greater works in the Sistine and in the halls of the Vatican. Venetian art was, in the main, theatrical, spectacular. It was but one of the properties in Venetian pageantry and splendour. Art had overleaped its true mark and fallen on the other side. There is art and there is art; and it is in the want of power to discriminate between this and that that we recognise the superficiality of the amateur critic. METER.

A VISIT TO THE METROPOLITAN RAILWAY COMPANY'S LOCOMOTIVE AND CARRIAGE WORKS AT NEASDEN.

DURING the last three years extensive new locomotive and carriage works have been in course of erection at Neasden, for the Metropolitan Railway Company. These large works, which have already been noticed in the *Builder*, have just been finally completed, and were fully opened for the various departments of locomotive and carriage manufacture the week after Easter. The works, which occupy an area of between seven and eight acres, are situated on the north-east side of the company's line to Harrow, a short distance beyond the Kingsbury-Neasden Station, the approaches to the works at this point diverging from the main line of railway by a network of metals. The buildings, consisting of nine blocks, are erected on each side of a central roadway, 60 ft. in width, and stretching to a length of half a mile in extent, along which four lines of rails are laid down. The buildings on the south-west side of this roadway comprise five blocks, at the head of which is the block containing the general engineer's offices. This building is 93 ft. in length and 40 ft. in width, and contains two lofty floors. Internally it is fitted with every convenience for the business of this department. On the ground-floor is the office of the principal engineer, together with the offices of the corresponding clerks, store clerks, storekeeper, and waiting-room. The upper floor contains the drawing-offices, the accountant's offices, the offices of the assistant-engineer, and the plan-room, a spacious apartment, 50 ft. by 25 ft. Adjoining the engineer's offices is the block containing the builders' workshops, two stories in height, and 205 ft. long by 42 ft. wide. Next come the permanent way, signals, and coppersmiths' shops, a building of one story, 22 ft. in height, 325 ft. in length, and 50 ft. in width. An adjoining block, consisting of two stories, 205 ft. long and 42 ft. wide, contains the stores. This building is very substantially erected, and of great strength. The walls are 4 ft. in thickness, and the upper floor rests upon strong iron girders, supported from the ground-floor by iron columns. At the extreme west end of the central roadway, in continuation of the several blocks on the south-west side already named, are the gasworks. These buildings consist of two blocks, each 78 ft. in length and 30 ft. in width, one of which is already completed and in working order. It should be observed that these particular works are not for the purpose of supplying gas to the locomotive and carriage works themselves, but for furnishing the portable gas to the company's carriages on the several portions of the line. The buildings on the north-east side of the central roadway comprise a large timber and drying-shed; and adjoining is the steam saw-mill, 134 ft. by 54 ft. The machinery is worked by steam power under the floor. The carriage repairing and painting shops are 164 ft. long by 163 ft. wide, and are in two blocks, each block having ten lines of rails, capable of holding thirty coaches. Adjoining these, again, are the locomotive shops, 221 ft. by 194 ft. They comprise the erecting-shop, the fitting and turner's shop, the blacksmith's shop, and the boiler-maker's shop. The erecting-shop, which consists of two stories, is very strongly built, the walls being 4 ft. in thickness. There are ten roads in it for engines, the number of engines which it will accommodate being ten. Immediately adjoining the locomotive shops is the boiler-house, 59 ft. long by 24 ft. wide, and having a chimney-shaft 80 ft. in height.

The whole of the works were designed by Mr. J. Tomlinson, the company's engineer, the first portion being carried out by Mr. Garlick, of the Saltley Works, Birmingham, and the second portion by Messrs. B. N. Smith & Co., also of Birmingham. Upwards of 800 tons of iron work have been used in the construction of the works, 350 tons of which, for the first contract, were supplied by the Horsley Iron Company, of Tipton, Staffordshire, and the remaining portion by Messrs. Stanley Hall & Co., of Queen Victoria-street, whose contract amounted to 4,000*l.* Mr. Clark has acted as clerk of the works during the progress of their con-

struction. The total cost of the buildings was upwards of 60,000*l.*, but in addition the company have expended 40,000*l.* in the fittings and machinery, bringing the entire cost of the works up to 100,000*l.*

It remains to be added that a still further large expenditure has been incurred in providing for the residential accommodation of the artisans and others employed at the works. The railway company are the owners of an estate of 200 acres in extent, situated in the immediate neighbourhood of the works, and of which the site upon which they stand forms a part. Upon a portion of this estate, about half a mile from the works, the company have just erected 100 workmen's cottages for those employed at the carriage works, together with ten three-story houses and provision shops. The cost of these buildings was 30,000*l.*, Mr. Jones, of Gloucester being the contractor.

THE LATE GREAT FIRE IN WOOD STREET.

EXTENSIVE NEW BUILDING WORKS.

THE restoration of several of the extensive warehouses and other premises in Wood-street, Philip-lane, London-wall, and Addle-street, which were destroyed by the great fire, is now in progress. Amongst the greatest sufferers were Messrs. Rylands & Sons, and Messrs. Foster, Porter, & Co., and the premises of these firms are at present in course of re-erection. Messrs. Rylands & Sons' establishment covered an exceptionally large area, stretching eastward from Wood-street to Philip-lane, with a long frontage to London-wall. The portion of the property now in course of reconstruction is that at the north end of Philip-lane. The external walls up to the stone cornice and window-heads of the first floor have been found to be comparatively uninjured, with the exception of one part, where new stonework is being built into the window arches. The rest of the elevation, consisting of three lofty floors, is being entirely rebuilt, and has already been carried up beyond the second floor. The elevation is faced with red brick and Dumfries stone dressings, each floor having three-light mullion windows. Internally, the building is being completely reconstructed from the basement. Messrs. J. & J. Belcher are the architects, and Mr. Braid, of Chelsea, is the contractor.

The ruins of the adjoining block in Philip-lane, also belonging to Messrs. Rylands & Son, which consists of five floors, still remain shored up, but it is stated that the rebuilding of this block will immediately follow upon the buildings now in progress.

The Cheshire Cheese Tavern, at the corner of Philip-lane and Addle-street, which, amongst other property, suffered by the fire, has just been rebuilt.

The property destroyed by the fire, having its frontage to Wood-street, the whole of which belongs to Messrs. Foster, Porter, & Co., and Messrs. Rylands & Sons, is likewise about to be rebuilt. The rebuilding of this portion of the property has been delayed in consequence of negotiations with the Commissioners of Sewers respecting the widening of Wood-street. Terms have now been agreed upon, under which it is understood that this part of Wood-street will be widened to the extent of 5 ft., and the erection of the new buildings will be at once commenced. Those for Messrs. Foster, Porter, & Co. extend from the corner of Addle-street a considerable distance along Wood-street, having a frontage to that thoroughfare upwards of 100 ft. in length, where Messrs. Rylands & Sons' frontage commences. As regards Messrs. Foster, Porter, & Co.'s premises, the old materials were cleared away shortly after the fire, and this week the preliminary work of excavations and getting-in the foundations for the intended new buildings has been commenced, Mr. W. Brass, of Old-street, being the contractor. This portion of the work is expected to be completed ready to receive the superstructure in about six weeks. Messrs. Ford & Hesketh are the architects.

With respect to the adjoining property, for Messrs. Rylands & Sons, some weeks must necessarily elapse before the commencement of the new buildings. The *débris*, walls, and old materials are now in course of removal; but there yet remains much to clear away before the foundations for the new buildings can be proceeded with.

MEXICAN ANTIQUITIES.

AT the village of Mitla, which lies between twenty and thirty miles from Oajaca on the tableland of Mixtecapan in Mexico, some important archæological discoveries have recently been made which are calculated to throw fresh light upon the ancient native architecture of America. An extensive series of remains have been found of ancient palaces and tombs, the former of which are remarkable for their resemblance in one most essential feature to the architecture of ancient Greece and Rome. These Mexican palaces all present the same form of construction,—that of lines of columns supporting a roof. This style is believed to be peculiar, so far as concerns America, to that portion of Mexico where the remains have been found. The ruins have recently been examined by M. Emil Herbruger, who has taken a number of photographs of them. He was not permitted, however, to carry out any excavations. He states that the principal hall has six columns, and is 37 mètres long and 7 mètres wide. Every column is 3½ mètres in height, and is of solid stone. The tombs are all of the same dimensions, and are in shape like the capital letter T. The walls are adorned with stone mosaics. The floor lies at a depth of 1 mètre from the surface, and at the entrance stands a monolith column. There are several columns 3 mètres high and 1½ mètre in diameter. Each tomb is 5 mètres in length and 1½ mètre in width. At first M. Herbruger and his Indian servants used the tombs as sleeping-rooms, but the natives soon refused to sleep in them as they said they were visited by ghosts at night. The explorer intends shortly to publish the result of his researches in detail, and to accompany the work with illustrations derived from the photographs he took of the ruins.

FRENCH SCIENTIFIC EXPEDITIONS.

THE French Minister of Education proposes that a grant of 115,000 francs (4,600*l.* sterling) shall be made this year for the despatch of a scientific mission to Tunis. He will also propose another vote of 129,000 francs (or 5,160*l.* sterling) for the purpose of converting the present temporary scientific mission to Egypt into a permanent arrangement, and then to reconstruct it under the title of the "Institute for Oriental Archæology." The Tunis expedition, which it is contemplated to maintain for three or four years, will devote itself partly to archæological researches in that country and partly to botanical and geological investigations. The members of the mission will consist of a number of young savants, who will be placed under the general supervision and direction of the "Institut de France."

THE CAPITAL OF ENGLISH RAILWAYS.

THE total capital of the twelve great English railways up to the close of the year 1882 amounted to 505,030,000*l.*, as against 492,833,000*l.* at the close of the year 1881, showing that upwards of twelve millions had been added to the capital of these several companies during the intervening twelve months, representing a considerable increase of works and increased mileage during that period. The capital of the London and North-Western Company at the end of the year which has just closed was 86,817,000*l.* The Midland company is next in amount, with a capital of 70,747,000*l.* Then comes the Great Western Company, whose capital is 68,143,000*l.* The North-Eastern Company follows with a capital of 56,170,000*l.*; the Great Eastern, 37,332,000*l.*; the Lancashire and Yorkshire, 35,084,000*l.*; the Great Northern, 33,951,000*l.*; the Manchester, Sheffield, and Lincolnshire, 24,917,000*l.*; the London and South-Western, 24,171,000*l.*; the London, Chatham, and Dover, 23,735,000*l.*; the London, Brighton, and South Coast, 22,610,000*l.*; and the South-Eastern, 21,353,000*l.* The relative increase of capital of the different companies during the year showed that of the London and North-Western Company to be 2,016,000*l.*; the Lancashire and Yorkshire, 1,768,000*l.*; the Great Eastern, 1,664,000*l.*; the Great Northern, 1,304,000*l.*; the Great Western, 1,061,000*l.*; the London and Brighton, 664,000*l.*; the Manchester, Sheffield, and Lincolnshire, 600,000*l.*; the North-Eastern, 535,000*l.*; the South-Eastern, 578,000*l.*; and the London, Chatham, and Dover, 278,000*l.* The present aggregate length of these several railways is 11,086 miles, divided as follows: — Great Western, 2,241 miles; London and North-Western, 1,755 miles; North-Eastern, 1,508 miles; Midland, 1,260 miles; Great Northern, 901 miles; Great Eastern, 873 miles; London and South-Western, 797 miles; Lancashire and Yorkshire, 495 miles; London, Brighton, and South Coast, 432 miles; South-Eastern, 382 miles; Manchester, Sheffield, and Lincolnshire, 290 miles; and London, Chatham, and Dover, 154 miles.

THE BRADFORD CHIMNEY DISASTER.

LIEUT.-COL. SEDDON, R.E., has sent in his report to the Home Secretary on the causes of the fall of the Newlands Mill Chimney, Bradford. The report, which is printed *in extenso* in the *Bradford Observer* of the 14th inst., entirely confirms the conclusions at which we arrived, and to which we gave expression, at the termination of the inquest on the bodies of the fifty-four unfortunate operatives who were killed by the disaster.* After describing in detail the foundations and construction of the chimney, and the attempt to straighten it, Col. Seddon recounts the circumstances attending the subsequent history and fall of the chimney, and in conclusion makes the following remarks on the causes of its failure:—

"The failure of this chimney was undoubtedly due to the damage done to the structure in the operation of straightening. The only wonder is that it survived that operation for twenty years. One cut would have been serious enough, but the second was fatal to the slice of masonry between the two cuts. The weight of the shaft above, at least 2,200 tons, giving a uniform pressure of 7 tons per foot super., rocking in every wind on this weak spot, slowly but surely disintegrated the masonry; the loose rubble backing, in yielding, threw the weight on the damaged outer casing and the inner brick lining, which latter stood on two independent single-brick cylinders, 30 ft. high, the inner one of firebrick exposed to all the heat of the ascending gases, and the other of red brick laid without any stretchers, at any rate for the greater part of its height. The leaning of a chimney and cracks in the shaft would not be sufficient of themselves to cause any apprehensions of immediate danger in a district where the majority of the chimneys are more or less cracked and many are considerably out of plumb, but, as it happened, those who examined this chimney were misled by a knowledge of its previous history into thinking that the rapid development of the cracks and bulges was merely due to the vibration of the chimney in the wind loosening the old portions of the outer casing which had been built up after the straightening without being tied into the backing, and which had again become loose and undergone similar repairs about sixteen years before. The chimney was in reality daily resting more and more on its outer skin, to remove which as decided was no doubt a fatal error. Before, however, this could be done, piece after piece of the outer shell was pinched out, and the rocking of the shaft in the wind on the Wednesday night and Thursday morning completed the destruction of the chimney. A heavy gust came, and the damaged backing, having lost the little tie previously afforded by the outer casing, burst out, and all was over. It is easy to be wise after gaining experience, but the history of this chimney is so exceptional that I doubt if any one would have anticipated any immediate danger. The cutting-straight of brick chimneys is an operation of common occurrence, but I am not aware of any stone chimney, except this one and another close by, belonging to Messrs. Sugden & Briggs's works, having been so treated. I unhesitatingly say that it was an operation which ought never to have been performed. The design of the chimney was radically bad in almost every particular, and, although the actual cause of its falling when it did was the damage done to it in straightening, I feel certain that even without that operation it could only have had a limited life, and unless taken down in time, it would certainly have fallen some day or other. The system of constructing chimneys or any other walls to carry heavy weights, of three or four different parts, each too weak in itself, and yet so put together that they cannot possibly work in unison, cannot be too strongly condemned; whilst the necessity in large chimneys for the firebrick lining being perfectly independent of the structural part of the shaft is now universally recognised. The fall of this chimney ought to be a warning in future to any one who, dispensing with proper professional advice, takes upon himself the responsibility of carrying out works upon the safety of which the lives of so many may depend. Here we have a self-constituted architect and engineer, with a thoroughly bad design to begin with, for an 85-yard chimney, in which the uniformly-distri-

* See *Builder*, p. 163, *ante*.

buted pressure at the base of the shaft would amount to over nine tons per foot super., first deciding, after getting about 10 yards above the ground line, to carry the shaft up to 100 yards instead of 85 yards, with the idea of making it look lighter (this was abandoned after the failure at 70 yards); and next weakening the structure considerably by inserting recessed panels all the way up to ornament the face, and that in spite of the advice of his builder to the contrary. It may not be out of place here to point out that there is a limit to the useful height of a chimney as regards draught; whilst the increase of draught due to increase of height is frequently more than counterbalanced by the losses due to sudden changes of direction in the underground flues, and their want of gradual easing into the chimney, as well as by the unnecessary admission of cold air into the interior of the chimney. Looking to the possibility of there being other factory chimneys in a dangerous condition, as well as to the evidence of the Bradford Borough Surveyor as to the difficulty of getting to know of such cases, whilst he has no power to inspect such structures without some grounds to go upon, it is worthy of consideration whether the factory inspectors might not be empowered to make inquiries on this subject, and to report any cases which may come to their knowledge."

We have received from Mr. John Waugh, C.E., of Bradford, an interesting and concisely-written report on the subject, illustrated with plans and sections. Mr. Waugh, it will be remembered, assisted Colonel Seddon in his investigations. Mr. Waugh's report is addressed to the Directors of the Yorkshire Boiler Insurance and Steam Users' Company, to whom he is engineer, and although primarily written for the benefit of steam-users (all steam-boiler owners being more or less interested in chimney construction), it is likely to prove useful and instructive to a wider circle of readers. Mr. Waugh, whose report is in agreement with that presented by Colonel Seddon, concludes by making the suggestion that all "suspicious-looking" chimneys should be inspected *internally* once in every two years. Had the Bradford chimney been so inspected, say a twelvemonth before its fall, its internal condition, as revealed after its fall, "would have put another construction upon the mistaken opinion as to the cause of the cracks in the outside casing,—an opinion only based upon outside inspection, and prevailing, unfortunately, even up to the day of the falling of the chimney."

ST. PAUL'S SCHOOL, KENSINGTON.

VISIT OF THE ARCHITECTURAL ASSOCIATION.

IT does not seem to be very widely known that St. Paul's School, founded by Dean Colet in 1512, will, in the course of a year or two, migrate from its confined quarters in St. Paul's Churchyard to West Kensington, where a large and important building, on the south side of the Hammersmith-road, has been for some time in progress of erection for the reception of the scholars. This building (of which we have already published a view,* together with plans of the three principal floors) was visited on Saturday last by a party of members of the Architectural Association, by permission of the architect, Mr. Waterhouse, R.A. The visitors were conducted over the works by Mr. Richards, the clerk of works. The building has made good progress, the contractors being Messrs. J. Parnell & Son, of Rugby. Externally, the building is of red Suffolk bricks and red terra-cotta, the roofs being covered with bridled tiles. The terra-cotta has been made by Messrs. Doulton & Co., of Lambeth, each piece being made hollow, and the interior filled with a concrete composed of 10 of fine gravel to 1 of cement, to give solidity to the whole mass. This concrete is found to be sufficiently strong for the purpose, while not liable to expand to such an extent as to crack the terra-cotta. All the concrete used in the building, including that in the tracery of the windows, is chambered and filled in in this way. The bricks used are without frogs, with the view of preventing a redundant use of mortar by the bricklayers, and so diminishing the chances of settlement. The facing-courses are set in black mortar, and a very good effect is obtained by bevelling the horizontal joints, each joint receding at the top and sloping outwards in a downward direction. On the occasion already referred to we described the leading dimensions of the building and its chief apartments. Among these are, on the second-floor, the large and small lecture theatres, in the centre of the building, so arranged that the partition between them may be readily removed and display one grand theatre, 88 ft. long and 40 ft. wide, with lateral extensions at the south end, which will make the theatre 64 ft. wide at that part. The great hall, where all the scholars may be assembled on certain occasions, stands at the south-west angle of the building, on the ground floor, and will be a noble apartment, 80 ft. long and 50 ft. high to the panelled ceiling, having, in addition, at its south end, a semi-circular apse, in which will be placed the platform. The dining-hall, 125 ft. long, and which, with its corridor, divided from it only by an open arcade, is 41 ft. wide, occupies nearly the whole of the west flank of the building, on the second floor. The whole of the eastern flank of this floor of the building is to be occupied by the physical and chemical laboratories. Among other important rooms, the library, 50 ft. by 36 ft., is placed at the north end of the west wing, on the first floor. Connected with the school building by a cloister will be the master's house, while in the rear will be an extensive play and cricket ground, which will no doubt be gladly exchanged by the young Paulines for the cavernous and pillar-obstructed den set apart for their physical exercise in the building in St. Paul's Churchyard.

* See *Builder*, vol. xliii., pp. 274, 276.

THE BEACONSFIELD NATIONAL MEMORIAL STATUE.

THIS statue, erected in Parliament-square Westminster, was unveiled on Thursday last by Sir Stafford Northcote. The statue is draped in a peer's robes, which partially uncover the left leg and show the diplomatic dress sword. The right hand holds a scroll, while the left has gathered below the chest the folds of drapery. The head, looking down to the left, is a reproduction of the bust for which his lordship gave Mr. Raggi some sittings but a few days previously to his fatal illness. The statue has been carried out by Mr. Raggi from a small sketch in clay 15 in. high, the second which Mr. Raggi designed by order of the executive committee. It is 9 ft. high, and has been cast in bronze metal by Messrs. Young & Co., of Eccleston Works, Pimlico, and chased by Mr. Raggi.

The pedestal is of polished red Aberdeen granite, and is worked out of five solid blocks. The height is 10 ft. 6 in., and the total weight is about 25 tons. The inscription is cut in the panel at back; and the front panel will be filled with coat of arms in bronze.

The pedestal was supplied and erected by Messrs. Alex. Macdonald, Field, & Co., of the Aberdeen Granite Works, 373, Euston-road.

OBITUARY.

Dr. William Farr, C.B.—We announce with regret the death of Dr. William Farr, C.B., formerly Superintendent of the Statistical Department of the Registrar-General's office, which occurred on Saturday night last. He was born in 1807, at Kenley, in Shropshire, was educated at Shrewsbury, and afterwards proceeded to the Universities of Paris and London. After discharging the duties of house surgeon of the infirmary at Shrewsbury for a short time, he continued the practice and teaching of medicine in London. He also gave his attention to journalism, editing the *Medical Annual* and the *British Annals of Medicine*. From an early age he showed a strong taste for statistical inquiry, and in 1838 he was appointed Compiler of Abstracts in the Registrar-General's Office, where he organised the statistical department, of which he was made superintendent. In this capacity he assisted in taking the census in 1851, 1861, and 1871, and was sent by the Government to attend statistical congresses on the Continent. He was author of a large number of articles, contributions to medical journals, and papers relating to statistics of health and kindred subjects. He was also corresponding member of the French Institute.

Lord Talbot de Malahide.—The death is announced of Lord Talbot de Malahide as having taken place at Madeira on Saturday last. James Talbot, Baron Talbot de Malahide, and Lord Malahide of Malahide, county Dublin, in the peerage of Ireland, and Baron Talbot de Malahide, county Dublin, in the peerage of the United Kingdom, by which last title he held his seat in the House of Lords, was the eldest son of James, third lord, second son of the first Baroness, by his wife Anne Sarah, second daughter and co-heir of the late Mr. Samuel Rodbard, of Evercreech House, Somersetshire, and was born on the 22nd of November, 1805. He was a Fellow of the Society of Antiquaries, and for many years President of the Archæological Institute of Great Britain and Ireland.

General Scott, R.E.—Major-General Henry Young Darracott Scott, C.B., F.R.S. (late Royal Engineers), died on Monday morning at his residence, Silverdale, Sydenham, aged 61. The late General Scott was educated at the Royal Military Academy, Woolwich, and entered the Royal Engineers in 1840. He acted as instructor in surveying and practical astronomy at Chatham, and also as examiner of military topography for the military education department at the War Office. He retired from the army in 1871 as major-general, and became Director of Buildings at South Kensington, acting as architect to the Royal Albert Hall and Science Schools on the death of Captain Fowke. He had just finished superintending the construction of the buildings for the great International Fisheries Exhibition.

Mr. George Wright, for twenty-five years assistant surveyor and sanitary inspector for Lee and Kidbrook, under the Plumstead District Board of Works, died on the 10th inst., at the age of fifty-nine.

NEW BANK BUILDINGS IN THE CITY.

A NEW block of bank buildings has just been erected at the corner of Abchurch-lane, King William-street. The building has been erected for Messrs. Brown, Janson, & Co., by whom they will be opened for banking purposes in the course of next month. It is a four-storied structure in Portland stone, with a handsome and elaborately carved elevation. The ground-floor, extending in depth to the churchyard of St. Nicholas Acons, which it overlooks, is very richly fitted and decorated, the floor being laid in marble of varied patterns and colours. This portion of the building forms the banking-house, and will be exclusively occupied for banking purposes, the upper floors being let as offices. In erecting the premises it was necessary to preserve a footway between Abchurch-lane and Nicholas-lane, and this has been effected by a passage between the entrance to the bank and that to the offices above.

The building has been erected from the designs of Mr. J. Whichcord, Messrs. Learid, King, & Co. being the contractors.

ALHAMBRA THEATRE.

THE tenders for the first contract for the re-erection of this theatre are as follows:—

	Weeks.	
McLachlan	48	£42,170
Ashby & Horner	47	40,363
Perry & Co.	41	38,854
Langmead & Way	52	38,720
J. Clemence	52	38,510
Patman & Fotheringham	48	37,709
W. Brass	26	32,883
Clarke & Bracey	33	32,451
Merritt & Ashby	36	32,233

As time is of the utmost importance to the company, the tenderers were informed that a fine of 50*l.* a day would be levied for failure to complete within the agreed time. The relative position of the tenders, adding 50*l.* for each day in excess of the shortest time named, will therefore be thus:—

McLachlan	£48,770
Ashby & Horner	46,936
Langmead & Way	46,520
J. Clemence	46,310
Patman & Fotheringham	44,309
Perry & Co.	43,354
Merritt & Ashby	35,233
Clarke & Bracey	34,551
W. Brass	32,883

Tenders were also received from Messrs. Trollope, Messrs. Rider, and Mr. Chappell, but as the form of tender sent out had been varied by them, the amounts are not included in the above lists.

As the Board of Works has not yet passed the plans for the new building, no contract has been entered into.

J. Jones & Sons, who have carried on business at Bankside, Southwark, as iron merchants and hot water engineers, for upwards of forty years, have removed to 42, Farringdon-street, owing to expiration of lease.

PROPOSED SANITARY INSPECTORS' ASSOCIATION.

SEVERAL inspectors think it very desirable that such an association should be formed of inspectors and other officers who are engaged in the performance of sanitary works for London and suburbs, whereby they could meet periodically for reading papers, &c., and to help one another generally on all matters pertaining to the office of inspector of nuisances. All who are interested in the formation of such an association are requested to communicate with either Mr. A. H. Lukes, 20, Berkeley-road, Gravesend, or to

SAMUEL C. LEGG,
No. 62, Gayhurst-road,
Dalston, London, E.

GLASGOW SOUTHERN HOSPITAL.

THE committee have now awarded the premium in this case to the plan sent in under the motto "Hygiene" (No. 1), the authors of which are Messrs. Campbell Douglas & Sellars, Glasgow. The next five plans in order of merit, as determined by the adjudicators, are "Isolation," by James Fairley, Edinburgh; "Torsitan," by Messrs. Mills & Murgatroyd, Strutt-street, Manchester; "Coila," by Francis Stirrat, Glasgow; "Echelon," by Messrs. Keith Downes Young & Henry Hall, London; "Rutherglen," by Messrs. S. & A. Smith, Hastings. It may be mentioned that there were forty-six competitors, and that besides many local architects, these embraced architects from Paris, London, Manchester, Birmingham, Liverpool, Halifax, Hull, Belfast, Edinburgh, Dundee, and other places of importance.

NOTTINGHAM NEW MUNICIPAL OFFICES COMPETITION.

THE following is a list of candidates selected for final competition:—

Motto.	Name.	Address.
Esto	J. W. Hickson ...	6, Exchange-street, Manchester.
J'Espère	Truman & Pratt ...	Nottingham.
Suitability ...	Charles Bell.....	9, New Broad-street, London, E.C.
Light.....	Geo. Corson.....	35, Cookridge-street, Leeds.
Order.....	Y. Thomason	Bennett's-hill, Birmingham.
Might, Light, and Right	Verity & Hunt	37, Regent-street, London.
Simplex	W. Haury	7, Whitehall-place, London.
Childe Harold .	J. H. Oldham...	23, John Dalton-street, Manchester.

DOUBLE COMPETITIONS.

SIR,—Now that the Institute has decided to recommend in future the system of double competitions, our Leeds Architectural Society would be glad if you could find space for the circular forwarded by them to the Fellows of the Institute, which contains the reasons leading them to oppose the double competition plan as being a retrograde movement, and one that will seriously damage the position of the profession.

Did the Institute represent the opinion of the architects of this country, or had they even endeavoured to ascertain or follow the feelings of those for whom they profess to speak, our Society would have loyally accepted their decision, and have submitted with a good grace to the will of the majority. As long, though, as the Council of the Institute consists of eighteen metropolitan architects to four provincial ones, whilst the country architects outnumber the London ones by eight to one, they cannot be fairly held to speak with the voice of the profession; and our Society, with others, may honourably hold themselves free to openly oppose decisions made in the interests of a class, and wholly against those of their fellows generally.

J. WREGHITT CONNON.

*** The question having been settled at the Royal Institute of British Architects, it would seem to be useless to reopen it at this moment.

SURVEYORSHIP ITEMS.

Deal.—Mr. H. T. Wakelam, of King's Lynn, writes respecting the Deal Surveyorship as follows:—"Your correspondent must have been misinformed respecting the above, at least regarding that part which refers to myself; I certainly was one of *five* selected for the appointment, but having been appointed to the Borough Surveyorship of Oswestry from 110 candidates, two days previously (*i.e.*, on the 3rd inst.), I wrote to the town clerk of Deal acquainting him of it; also informing him *that I should not be present* at the election on the 5th inst."

Oswestry.—As will be seen by the above, Mr. H. T. Wakelam, Deputy Borough Surveyor of King's Lynn, was appointed Borough Surveyor of Oswestry on the 3rd inst. There were 110 applicants for the post, from which number five were selected. The voting resulted as follows:—Wakelam, 15; Helme, 5; Roberts, 3.

ARCHITECTS' BENEVOLENT SOCIETY.

SIR,—In the remarks I made at the Architectural Association in proposing a vote to the Architects' Benevolent Society, I am sorry that I conveyed the impression that this should supersede the subscriptions of members. I feel strongly that the Society should be supported by every individual engaged in the profession, according to his ability, and there are few that cannot contribute at the rate of one penny per week, or, say, 5*s.* per annum. If each member of the Association would do this, we should be able to subscribe upwards of 200*l.* per annum. I hope the amount voted will head an annual list containing a large number of names, and that the same may be done by other societies in the kingdom, so that the Architects' Benevolent Society may be of increasing use and benefit.

J. DOUGLASS MATHEWS.

THE SMOKE ABATEMENT COMMITTEE'S OFFICIAL REPORT.

SIR,—In your issue of the 31st of March (p. 429, *ante*), I proved, in reference to Mr. F. Edwards's assertion, that, for the purposes of the tests, there was not a pin to choose between the South Kensington 8½-in. chimney and the Manchester climbing-boy chimney, 14 in. square; that, in fact, one was just as good as the other. Thus I disposed of his mare's-nest; and his statement in your issue of April 6th, that I muttered something about the chimney being too small, is absolutely untrue. But he discovered another mare's-nest in the assumption that members of the committee disclaimed responsibility for the tests. This statement is false and libellous.

Mr. Edwards, in the same letter, refers to a report by me, quoted in an advertisement in the *Sanitary Record*, on what he calls "fireplace for domestic use," from which 13,000 cubic feet of air, heated to from 380° to 440° was delivered per hour, "fit only," he says, "for a baker's oven." Here, again, his plausible disingenuousness may be exposed. The stove in question is the "Manchester Stove," designed for heating large halls and public buildings, and is not a domestic stove at all. As a matter of fact, it was tested, not in the testing-house, but in the Exhibition Building at Manchester. Nor was it "selected for public approval," as Mr. Edwards disingenuously asserts elsewhere. It was submitted for test, like all the other subjects for test, on the initiative of the exhibitor.

I must confess I am weary of Mr. Edwards. I like fair play and square play in discussion. His deliverances on the sizes of chimneys are not particularly disputed, and they may be very valuable, but they are beside the question.

D. K. CLARK.

*** The discussion must end here.

Books.

The Iron and Coal Industries of the United Kingdom: comprising a Description of the Coalfields and of the Principal Seams of Coal, with Returns of their Produce and its Distribution, and Analyses of Special Varieties. Also an Account of the Occurrence of Iron Ores in Veins and Seams; Analyses of each Variety; and a History of the Rise and Progress of Pig-iron Manufacture since the year 1740, exhibiting the Economies introduced in the Blast-furnaces for its Production and Improvement. By RICHARD MEADE, Assistant Keeper of Mining Records. With Maps of the Coalfields and Ironstone Deposits of the United Kingdom. London: Crosby Lockwood & Co. 1882.

THE author of this important work has done what many, with sources of information at hand as good as he was able to avail himself of, probably have shrunk from performing; that is to say, written a comprehensive yet lucid history of the two staple industries of these islands. Although much information exists on these subjects, it is too widely diffused to be practically useful. Mr. Meade has therefore condensed all that has been published separately in the various branches of those industries, and, at the same time, given such details relating to our coal, iron, and steel trades as ought to be included in a work of this nature. We have no space to enter fully into the consideration of these several questions; but an idea of the contents of the bulky volume will be formed by the following brief summary. In the first part of his work the author treats of the different coalfields of the United Kingdom separately, and gives the extent of the beds, together with analyses of the several kinds of coal found in each. He also gives the production from the earliest period recorded, as well as the population engaged in mining at the time of preparing his work, and the cost of raising the mineral in the different localities. Finally, the resources of the various coalfields are shown, together with some calculations as to their probable duration. This portion of the work possesses special interest, and will instil confidence into those timid souls who were alarmed some years ago by the unfounded predictions as to the early exhaustion of our coalfields. Mr. Meade shows them that the total area of the coalfields of the United Kingdon is 7,876 square miles, and he estimates, upon data collected by the Royal Coal Commission, that the reserve of coal possessed by Great Britain in 1880 amounted to 135,288,613,038 tons, which, at the rate of consumption of that year, would be equal to 920 years' supply. Some of the coalfields would hold out longer than others. Thus, the Bristol coalfield is calculated to have reserves which will last for 5,122 years. But as more recent returns have shown that the consumption of coal is still increasing, the estimate for the whole kingdom will have to be much reduced. On the other hand, the conversion of electricity into power has made such vast practical strides lately that it is highly probable that a great saving will be effected in the consumption of our old power-producer, coal.

Turning to the second portion of Mr. Meade's volume, the results arrived at by him are quite as startling as those contained in the first part. He treats the iron industries of the United Kingdom in a similar manner as the coal trade, and from this treatment we learn that the development of the iron trade has been as enormous as that of the other branch. Taking, for instance, the production of pig-iron, we find that from the 17,350 tons of crude charcoal metal produced in 1740 the production has risen to nearly 8,000,000 tons in 1880. The author traces the various stages through which the iron industry had to struggle before it attained its present importance, and gives a complete history of the improvements and economies which have been introduced into the manufacture of iron in all its branches. The quantities of coal and iron ore used in the production of iron are given, and the returns bearing upon economy in the use of coal in the smelting operations of the blast-furnace have been collected and stated. Lists of all the works engaged in the manufacture of finished iron, as well as of steel, by the Bessemer, Siemens, Siemens-Martin, and Thomas-Gilchrist processes, have been included. An important feature of the work, finally, is the chapter on the foreign iron ores imported into this country, with a description of their general character, and analyses of the leading descriptions. We have indicated enough to show that the book which Mr. Meade has produced is a very valuable one. He states that he endeavoured to meet the want for an historical work on the coal and iron trades of the United Kingdom. We have no hesitation in saying that he has given us a complete history, brought down to recent times, of those important industries.

VARIORUM.

A Diary of Royal Movements is the title of a work announced by Mr. Elliot Stock as shortly to be published, containing a record of personal events and incidents in the life and reign of Queen Victoria.

Instruction in Fire Extinction.—A correspondent suggests that the means of preserving life and property from the terrible effects of fire are as worthy a subject of study as the "first help to the wounded," or "what to do until the doctor comes" in cases of illness. Why not then, he asks, give to people of all ages the same facilities of instruction in the one subject as in the other, by the establishment of classes, with competent teachers, for the purpose of imparting a knowledge of the chief means of preventing fires in houses, and how best to act at the moment when they do occur? Many house-owners, he feels convinced, would be only too glad to avail themselves of such instruction, and to enable their servants to do likewise.

Miscellanea.

The Late Lord F. C. Cavendish.—Memorial Cross.—There is now standing at the eastern end of Undercliff Cemetery, near the Bradford Cemetery Company's workshops, a large freestone cross, which is to be ultimately erected in Bolton Abbey, as a memorial to the late Lord Frederick Cavendish. The cross has been subscribed for by the tenants on the Duke of Devonshire's Bolton Abbey estate. Spending so much of his time there, he was in frequent intercourse with the Duke of Devonshire's tenants, and how he impressed others during that intercourse is shown by the existence of this cross, by which it is intended to perpetuate a worthy memory and mark a tragic end. The cross has been temporarily placed in its present position, so that the public of Bradford may have an opportunity of seeing it before it is removed to Bolton Abbey. The monument is of imposing appearance. It is 17 ft. in height, and is carved out of the fine white freestone supplied by Mr. Chas. Waterhouse, Bolton Wood Quarries, Bradford, which experience has shown to be eminently adapted for monumental purposes. The cross itself stands upon a pedestal about 4 ft. 9 in. high by 4 ft. square, and the pedestal in turn is superior to a block 7 ft. square and 2 ft. thick, which forms the base of the whole. The carving has been entrusted to Messrs. Farmer & Brindley, of London; Messrs. Mawson, architects, Bradford, prepared the designs; and the stone was worked under the supervision of Mr. T. W. Spencer, manager for the Bradford Cemetery Company.

Messrs. Bumpus's New Premises, Oxford-street.—Messrs. Charles Williams & Co., of Ferry Ironworks, Cubitt-town, supplied the constructional ironwork used in this building, described and illustrated by us last week.

The Royal Mail Steamer, "Hawarden Castle," which recently proceeded down the Firth of Clyde for the purpose of being tried on the measured mile at Skelmorlie, is described as a fine specimen of Clyde shipbuilding. She has been constructed by Messrs. John Elder & Co. for the Castle Mail Packet Company's South African service. The grand saloon, placed in the midship portion of the ship, is about 44 ft. square, and is finished in a Classic style of architecture, specially designed, the principal woods used in the decorations being walnut and oak. The first-class staterooms are unusually large and well finished, a number of them being fitted for only two passengers. The saloons have all been finished from designs by Mr. J. M. MacLaren, architect, London.

Competition—Christmas Card Albums.—1,100*l.* in prizes have been given by Messrs. Hildesheimer & Faulkner, publishers, the judges being Mrs. Wm. Duffield, Miss M. Ellen Edwards, and Miss Alice Havers. In class A the following are the three chief competitors:—First prize, 100*l.*, Miss Patty Townsend, Attleboro' Hall, Nuneaton; second prize, 75*l.*, Mr. W. E. Wilson, Laurel Bank, Brook-road, Heaton Chapel, Stockport; third prize, 50*l.*, Miss H. M. Bennett, Ashdale, Honor Oak Park, Forest Hill, S.E. In class B the following:—First prize, 100*l.*, Miss Patty Townsend, Attleboro' Hall, Nuneaton; second prize, 75*l.*, Miss Mary Capes, 80, Victoria-road, Clapham Common; third prize, 50*l.*, Mr. Ernest Wilson, Brook-road, Heaton Chapel, Stockport.

The Forest of Hainault.—The last vestiges of the once fine old forest of Hainault, in Essex, are rapidly disappearing. Under direction of the Office of Works—the land being Crown property—the processes of disafforesting and bringing into cultivation have been in progress for the last quarter of a century. Fine light soil, which once bore a somewhat stunted variety of oak, and was covered with undergrowth, is now laid out in extensive farms held on comparatively easy terms. Few people regret the change, except, perhaps, the wayside innkeepers, whose business has fallen off considerably since the forest ceased to be a place of public resort.—*Land.*

Cable Tramways.—It is stated that the Hallidie Patent Cable Tramways Corporation, Limited, have just completed negotiations with the Huddersfield Corporation for a twenty-one years' lease of their tram lines. Arrangements are being made for carrying out the conversion of the tram lines to the cable system as quickly as possible, and the lines are to be opened for traffic within five months from this date.

New Jerusalem Church at Anerley.—The dedication and opening services in connexion with the New Jerusalem Church, at Waldegrave-road, were held on Thursday, April 12th last. The new building is entirely of concrete, devised in the Gothic style of architecture by Mr. W. J. E. Henley, and erected under his superintendence by the Concrete Building Company. The nave will seat about 500 persons, and provision is made for galleries when required. The decorations are novel in church-work, the red concrete showing to great advantage. The acoustic properties are said to be excellent. There is a spacious lecture-room and school under the church, and every provision for carrying on the work connected with the church. The building has cost about 4,000*l.*, the freehold site being generously given by Mr. Alex. Wilson.

The Fire at Rochdale Town Hall.—It appears that the fire at Rochdale Town Hall arose from an escape of gas. The spire, which was chiefly composed of wood covered with lead, and gilded, was entirely destroyed, as was also nearly the whole of the interior of the clock tower. The Free Library was much injured. The whole extent of the damage is estimated at about 70,000*l.*

Formby's Cement Works Company, Limited.—The second annual general meeting of this company was held on Wednesday, the 18th inst., when a dividend at the rate of 10 per cent. per annum, free from income-tax, was declared, and the retiring directors, Mr. Alfred Kitt, C.E., and Mr. J. Eldin Gorst, Q.C., M.P., were re-elected.

Building Trades' Artisans in the United States.—A *Times* telegram from New York, dated the 15th inst., says that several strikes for advanced wages are threatened in that city, chiefly in the building trades. The carpenters ask $3½ per day, the painters $3½, and the plasterers 4½,—in other words, an increase of from 10 to 15 per cent.

The Slade Professor of Fine Art at Oxford.—Mr. Ruskin will, during the present term, give a course of three lectures, each being given twice. The lectures will be given on Wednesdays and Saturdays, in the Museum, Oxford University, and the first lecture on Saturday, May 12, will be on "Recent English Art."

Building Trades Exhibition.—On Friday evening, April 13, Mr. Philip Shrapnel, Secretary to the above, was entertained at a complimentary banquet by the exhibitors, and was presented with an address, engrossed on vellum and handsomely framed.

TENDERS.

For the construction of the Ranelagh and King's Scholars' Pond sewers relief sewer for the Metropolitan Board of Works. Sir J. W. Bazalgette, engineer:—

C. Killingback	£132,000 0 0
Nowell & Robson	128,800 0 0
Pearson & Son	128,500 0 0
Williams & Co.	103,300 0 0
Kellett & Bentley	102,000 0 0
W. Webster	101,300 0 0
Mowlem & Co.	97,000 0 0
McCrea & McFarland*	96,300 0 0
Martin Wells & Co.	96,000 0 0

* Accepted, subject to the usual inquiries.

For the erection of new town-hall and municipal offices, Newport, Mon. Mr. T. M. Lockwood, Chester, and Mr. E. A. Lansdowne, Newport, joint architects:—

For Grinshill Stone.

T. Shepton, Cardiff	£28,850 0 0
Stephens & Bastow, Bristol	26,950 0 0
W. Bowers & Co., Hereford	26,528 0 0
Lean & Sons, Gloucester	25,920 0 0
C. Miles, Newport	25,890 0 0
Tindal & Arbuckle, Cardiff	25,669 0 0
Jones & Son, Newport	25,587 0 0
D. Davies, Cardiff	25,000 0 0
Thos. White, Swansea	24,900 0 0
G. F. Marshall, West Smethwick	24,200 0 0
P. Horsman & Co., Wolverhampton	24,061 0 0
Forse, Bristol	23,350 0 0
S. Warburton, Manchester	23,324 0 0
E. Gabbutt, Liverpool	23,164 0 0
J. Linton, Newport (accepted)	23,121 0 0

For the enlargement of Neckinger-road Board School. Mr. E. R. Robson, architect. Quantities by Mr. Ch. W. Brooks:—

W. Shepherd	£2,169 0 0
Atherton & Latta	2,100 0 0
P. J. Jerrard	2,083 0 0
F. Johnson	2,058 0 0
W. Oldrey	1,958 0 0

For the enlargement of Fleet-road Board School. Mr. E. R. Robson, architect:—

Pritchard	£5,879 0 0
Steel Bros.	5,835 0 0
C. Goad	5,649 0 0
W. Brass	5,496 0 0
Roberts Bros.	5,367 0 0
E. Lawrence	5,256 0 0
W. Oldrey	5,184 0 0
Wall Bros.	4,946 0 0

For new printing-offices, Fetter-lane, for Messrs. R. K. Burt & Co. Messrs. Brown & Marsland, architects. Quantities by Mr. W. B. Brown:—

Dove Bros.	£12,275 0 0
L. H. & R. Roberts	11,972 0 0
Marsland	11,585 0 0
Rider & Son	11,268 0 0
E. Conder	11,088 0 0
Ashby Bros.	10,987 0 0
Colls & Sons	10,885 0 0
E. Lawrance	10,832 0 0
W. Brass	10,737 0 0
J. & J. Greenwood	10,771 0 0
Macey & Sons	10,596 0 0
Nightingale (accepted)	10,572 0 0

For pulling down and rebuilding the Swan public-house, and adjoining premises, 42 & 44, High-street, Islington. Mr. Frank Matcham, Rugby-chambers, Bedford-row, architect. Quantities by Mr. Frederick Thomson:—

John T. P. Roach	£2,350 0 0
Dove Bros.	2,480 0 0
Williams & Son	2,379 0 0
Wm. Shurmur	2,196 0 0
John Sharman	2,191 0 0
Richardson Bros. (too late)	2,113 0 0
Bangs & Co.	2,089 0 0
M. Manley	2,066 0 0
Kirk & Randall	2,000 0 0
Wall Bros.	1,996 0 0
E. Toms	1,939 0 0

For erecting sheds for the Yarmouth Urban Sanitary Authority. Mr. J. W. Cockrill, Borough Surveyor:—

Davy	£578 0 0
E. Howes	562 0 0
Fox	464 0 0
Bland	464 0 1
Want	426 10 0
Bray	410 0 0
Harbert	360 0 0
S. Wood (accepted)	355 0 0

For repairs to the jetty, Great Yarmouth. Mr. J. W. Cockrill, Borough Surveyor:—

Winter & C. Gilham	£99 16 11
Powell	98 15 10
Warren	80 0 0
Bray	78 0 0
Harbert (accepted)	60 0 0

For the construction of about 1,750 ft. of 3 ft. 6 in. brick culvert, with all necessary side entrances, ventilators, &c., in Park-road and Crouch End:—

Pizzey, Hornsey	£2,186 0 0
Bell, Wood Green	2,030 14 6
McKenzie, Williams, & Co., City	1,914 0 0
Wilkinson Bros., Finsbury Park	1,845 0 0
Bottoms Bros., Lavender Hill	1,811 0 0
J. Strachan & Co., Wood Green	1,686 19 10
Dunmore, Crouch End (accepted)	1,601 0 0

For alterations and additions to 54, High-street, Islington, for Cabmen's Coffee Palace, for Mr. J. E. Matheson, Mildmay Park.

W. Reason, 100, St. John's-street (accepted).

For alterations and additions to the Adelphi Theatre, for Messrs. A. & S. Gatti. Mr. Spencer Chadwick, architect:—

Langmead & Way (accepted).

For pulling down and rebuilding the Swan public-house, High-street, Islington. Mr. Frank Matcham, architect:—

			Fittings.
Roach	£2,350 0 0		£200 0 0
Dove Bros.	2,245 0 0		215 0 0
Williams & Son	2,183 0 0		196 0 0
Shurmur	1,980 0 0		216 0 0
Sharman	1,980 0 0		211 0 0
Bangs & Co.	1,882 0 0		207 0 0
Manley	1,866 0 0		200 0 0
Kirk & Randall	1,785 0 0		215 0 0
Wall Bros.	1,800 0 0		196 0 0
Toms	1,752 0 0		187 0 0

For rebuilding premises, New-street, Bishopsgate. Mr. E. A. Grüning, architect:—

Shurmur	£2,790 0 0
Hayward Bros.	2,749 0 0
Clarke & Bracey	2,696 0 0
Larter & Son	2,640 0 0
Holland & Hannen	2,582 0 0
Lawrence	2,572 0 0
Colls & Son	2,475 0 0

For repairs to St. Peter's Church, Hackney-road:—

Niblett	£434 0 0
Roberts	427 0 0
Taylor	395 0 0
Shurmur	390 0 0
Anley	356 0 0
Thompson	293 10 0
Jarvis & Son	293 0 0

For alterations and decorations at Warfield Park, Bracknell, Berks, for the Right Hon. Lord Ormathwaite. Mr. W. H. Milnes, 5, Westminster Chambers, architect.—

Holliday & Greenwood, London (accepted).

For alterations and repairs to three houses and shops in Wardour-street, Soho:—

Holliday & Greenwood (accepted).

For the construction of a new road with sewers, on the Cedars Estate, Walthamstow. Messrs. Wm. & F. Houghton, 61, Old Broad-street, surveyors:—

J. G. B. Marshall	£500 0 0
Thos. Wainwright & Co.	470 0 0
T. Huntley	467 0 0
J. C. Trueman	430 0 0
J. W. & J. Neave	370 0 0
J. Bloomfield	360 0 0
G. Acock	347 0 0
A. T. Catley	350 0 0
G. Impey	333 10 0
E. Wilson	330 0 0
J. Strachan & Co.	326 0 0
J. Jackson	322 0 0
J. Bell	320 0 0
P. G. Pound (accepted)	268 17 0

For building six shops, High-road, Kilburn, for Mr. E. T. Cave. Mr. Walter Graves, architect. Quantities by Mr. Pollard :—

Langridge & Son	£6,500	0	0
Howard & Dorrell	5,367	0	0
J. O. Richardson	5,239	0	0
Spenser & Co.	4,965	0	0
Ward & Lamble	4,620	0	0
Simons & Mackley	4,469	0	0
R. Julian	3,990	0	0

For chapel, Trinity-road, Wandsworth-common. Mr. T. H. Vernon, architect. Quantities by Messrs. Searle & Hayes :—

Titness	£2,567	0	0
Osbourne	2,520	0	0
Holloway	2,319	0	0
Higgs & Hill	2,292	0	0
F. Higgs	2,240	0	0
W. Johnson	1,999	0	0

For additions of billiard and drawing rooms to the old Rectory-house, Wimbledon, for Mr. Samuel Willson. Mr. E. J. Milner Allen, architect :—

H. Harmer, Wimbledon (accepted)	£835	0	0

For boundary-wall to enclose Parsonage, Garford-street, Poplar, for the Bishop of London's Fund. Mr. Benjamin White, architect :—

Parrish & Hawker (accepted)	£140	0	0

Accepted for new shop, warehouse, &c., at Leyland, Preston, for Mr. Frederick Hackforth :—

Brickwork —Thos. Croft, Preston.
Stonework.—D. Tullis & Son, Preston.
Plumbing, &c.—R. Croasdale, Preston.
Joiners' Work.—A. Tomlinson, Leyland.
Slating, &c.—Jas. Bowling, Leyland.
Plastering.—Thos. Spibey, Leyland.
Shutters.—J. Stone, Ulverston.
Total amount of Tenders, 382*l.*

For the erection of warehouse premises, 3, Union-street, Whitechapel. Mr. J. W. Brooker, 2, Railway-approach, London Bridge, architect :—

Drake	£2,098	0	0
Battley	2,059	0	0
W. & F. Croaker	1,846	0	0
Lawrence	1,842	0	0
Morter	1,835	0	0
Hubble & Trott	1,668	0	0
Holloway	1,647	0	0
J. Taylor (accepted)	1,610	0	0

For alterations and additions to premises, Deptford Bridge. Mr. J. W. Brooker, architect :—

Hall	£506	0	0
Hubble & Trott	495	0	0
Battley	487	0	0
Holloway (accepted)	467	0	0

For additions to Girls' School, South-street, Coventry, for the Coventry School Board. Mr. Herbert W. Chattaway, Trinity-churchyard, Coventry, architect :—

J. Wilson, Coventry	£189	0	0
J. Makepeace, Coventry	169	0	0
A. Waters, Coventry	165	17	0
A. Lester, Coventry (accepted)	139	0	0

For the erection of warehouse, smith's shop, &c., in West Orchard, Coventry, for Messrs. Matterson, Huxley, & Watson. Mr. Herbert W. Chattaway, architect :—

J. Makepeace, Coventry	£3,495	0	0
C. Garlick, Coventry	3,200	0	0
J. Marriott, Coventry	2,844	0	0
J. Worwood, Coventry	2,693*	0	0
T. Mayo, Coventry	2,550	0	0
C. Haywood, jun., Coventry*	2,545	0	0

* Accepted.

For finishing six houses in Bailey's-lane, Stamford-hill, for Mr. A. Sanders. Mr. Edward Brown, architect, 18, Hanbury-street, Spitalfields :—

Belcher & Ullmer	£1,290	0	0
Hawkings	966	0	0
Christoffer (accepted)	825	0	0

For alterations at the Bricklayers' Arms, Hassard-street, Hackney-road, for Messrs. Truman, Hanbury, Buxton, & Co. Mr. Edward Brown, architect :—

Marr	£638	0	0
Jackson & Todd (accepted)	529	0	0
Taylor	449	0	0
Shurmur (withdrawn)	397	0	0
Pewterers' Work.			
Paddon (accepted)	52	10	0
Rogers	52	9	0
Pringle	45	19	0

For the erection of five shop dwellings, Merton-road, Tooting, for Mr. W. Clark :—

Brickwork (labour only).

Bull	£274	0	0
Flexmore	245	5	0
Stevens	225	0	0
Amoss	155	0	0
Jordan (accepted)	155	0	0

Carcassing.

Jordan (accepted)	45	0	0

For building a town residence at South Kensington, for Mr. G. Pimsell. Mr. R. G. Spencer, architect. Quantities by J. W. Peters & Son :—

Fletcher	£7,843	0	0
Wells	7,809	0	0
Bolsome	7,737	0	0
Higgs	7,730	0	0
C. H. Sharp (accepted)	7,723	0	0

For the erection of house in the Hamilton-road, Ealing, for Mr. H. R. White. Mr. Robert Willey, 66, Ludgate-hill, architect :—

Waters, Ealing	£1,559	0	0
Turner & Sidley, Ealing	1,470	0	0
Penny & Durrant, Ealing	1,449	0	0
Nye, Ealing	1,430	0	0

For freehold residence, Ambleside-avenue, Tooting Bec Common, for Mr. C. B. Humphrys. Mr. F. Wheeler, architect, 119, Cheapside :—

Hill Bros., Streatham (accepted)	£1,420	0	0

For the removal of the Hornsey Cricket Club pavilion, on the American principle, the tender of Mr. John Springall, of Battersea Park-road, was accepted.

TO CORRESPONDENTS.

L. & W.—M. F. & Co.—W. B. B.—F. T.—W. C.—H. T.—G. S.—R. G. S.—W. & Co.—S. C. L.—J. B.—Messrs. W. & Co.—T. F.—W. M.—H. H.—A. & G.—Mr. T.—P. H.—A. S. C.—T. H. W.—J. & T. T.—J. N.—E. I. B.—C. & H.—Miss M. M.—W. & Co.—T. B.—J. W.—F. G. H.—R. W. W. & Co.—E. S.—Junius.—C. B.—H. & H.—S. & C.—A. M.—H. & H. (if you will send a short statement of the case, at present absent, we will then print the judge's summing up).

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